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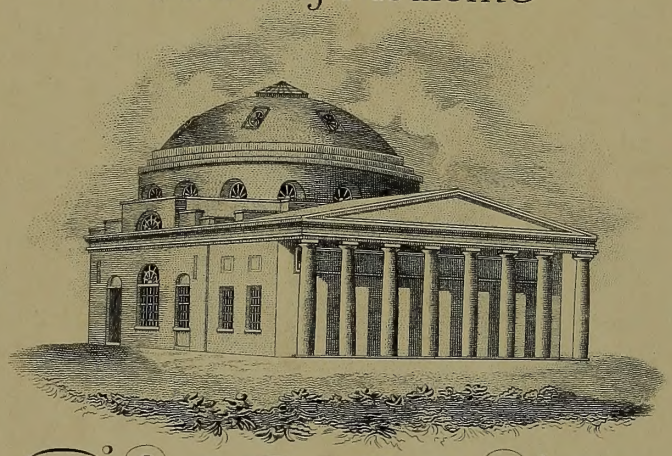

University of Maryland

Md.
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University of Maryland Theses

Early Doctor of Medicine and Doctor of Philosophy Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Philosophy during the years 1813-1867. The individual dissertations were bound together during the years. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were: Richard J. Dinsmore, Director of Libraries; Preservation Officer, Maria Millagros Florian; Metadata Management Librarian, Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Dowell, Alex Sobczak and Megan Wolff, Advocate Division.

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University of Maryland Theses

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The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

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(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1835, 1836

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Ayres, Robert H.	Pericarditis	1835	
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[1] Dedication and contents only bound here. Title page found later in this volume.

HSHSL 2011 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

Author	Title	Year	Notes
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[2] Bound out of order: Title page only bound here. Dedication and contents found earlier in this volume.
[3] Author, title and year taken from University of Maryland Medical Faculty, Matriculation List, 1821-1851, Registry of Graduates for 1835.

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Author	Title	Year	Notes
Jones, William	Inflammationis Pathologia	1835	
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UNIVERSITY OF MARYLAND

THESES

1835, 1836

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Minor, Charles	Thesis "On Medical Observation and Experience"	10p. (1)
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Baker, Samuel G.	Variola	15p.
Nairn, ~~Johannes~~ John Charles C.	Natura Chemica et Bili Pathologia	18p.
Barnett, John H.	Importance of the Study of Therapeutics and Materia Medica	8p.
Price, John Francis	~~Inaugural Dissertation~~ On Medical Education	11p.
~~Piney~~ Finley, Washington	Intermittent Fever	10p.
Bowie, Allen	Peripneumonia Nothal	16p.
~~Terry~~ Perry, George C.	Haemorrhoids	12p.
Linthicum, Theodore	On the Atmosphere in an Etiological Point of View	15p.
Keedy, Daniel G.	Delirium Tremens	19p.

(1) Thesis by Minor starting with dedication page. Title page, bound incorrectly, is inserted after dissertation by Doughty. Complete title of thesis is taken from Registry of Graduates 1835.

Smith, John Pearson	Cholera Maligna	20p.
~~Mario,~~ Ahlenfeld, Marcus	De Morbos Venereis	21p.
Bayly, ~~A.~~ Alexander Hamilton	Lues Venerea	17p.
Anderson, James ~~S.~~ L.	Generation of Intestinal Entosoa in the Human Body	15p.
Healy, Thomas A.	Erysipelas	11p.
Gilmer, Peachy Harmer	Phrenology	12p.
Watkins, ~~Wm.~~ William W.	Delirium Tremens	13p.
Doughty, R. J.	Pathology of Fever	18p.
~~Miner, C. H.~~ Minor, Charles	On Medical Observation and Experience ~~Inaugaral Dissertation~~	1p. ~~15p.~~ (1)
William Dashiel, Cadmus	On Circulation (of Blood)	15p. (3)
Jones, ~~W.~~ William T.	Inflammationis Pathologia	16p.
Creager, ~~Wm.~~ William Hauer	On various theories that have been advanced on the subject of ~~Conception~~ the proximate cause of Conception.	16p.
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Taylor, John A.	Typhoid Fever	16p. 1836
Pallen, M. Montrose	Spinal Irritation	14p.
Butler, Frederick	Vaccination	13p.

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(2) Title page only is inserted after thesis by R.J. Doughty. Complete title was taken from Registry of Graduates 1835. Remainder of thesis, beginning with dedication page, is after thesis by Coombe (see table of contents, p.(1).

(3) Author, Title and year taken from Registry of Graduates 1835.

An
Inaugural Dissertation
on
Erysipelas.
Submitted to the examination
of the
Provost Trustees
and
Medical Faculty
of the
University of Maryland
for
The Degree
of
Doctor of Medicine
by
Thomas A Healey
of
Baltimore
1835.

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To Richard Wilmot Hall M. D.

The following pages are respectfully inscribed, as the first fruits of a medical education, conducted under his care and direction, and as a testimony of gratitude for the many valuable opportunities of improvement, received by his friend and pupil

The Author

Erysipelas.—

Erysipelas may be called an inflammation of the skin either alone, or combined with that of the subjacent cellular tissue; and is generally accompanied with vesicular eruptions, the local inflammation being generally attended with symptomatic fever—

The various forms of Erysipelas depend on the degree of the local inflammation, on the type of the accompanying fever, and on other circumstances with which the case may be complicated.

Causes— It is very difficult in most cases to to find out the exciting causes of this disease. When it occurs in a part of an injury, we have at once a probable reason for the surrounding parts assuming this inflammatory action; but some other circumstances must operate on those instances as we do not have this inflammation following external injuries in every case.

There is in many persons an hereditary or acquired predispotition to inflammation of the skin from the most trivial causes; in such, I have no doubt there is some peculiarity in

the vascular system of the integuments; and any cause which will excite the circulation locally or generally, may induce erysipelas.

It is often produced by Gastric derangement, and from the intimate sympathy between the skin and mucous membrane of the stomach and bowels, it may be both the predisposing and exciting cause of the disease; especially if there happens to be a susceptibility to this disease. Derangement of the Liver will occasionally induce an attack of this disease, Dr. Potter mentions a case of this kind of a lady who lived in a miasmatic district and had an attack every spring and fall. She was at last cured by mercury carried to slight ptyalism and has not had an attack since. The irritation of the skin produced by an attack of Erysipelas will frequently induce sympathetic disorder of the Biliary and Gastric systems.

It is said that spring and autumn are the seasons of the year in which it is most prevalent; this I suppose to be in part owing to the vicissitudes of temperature in these seasons producing irregular capillary action.

Women at the cessation of the catamenia and old persons of a cachectic habit of body are liable to periodical attacks of Erysipelas; it is generally preceded or accompanied in such cases by symptoms of derangement of the liver stomach and intestines, but without much fever. The patients in establishments for the sick are sometimes very liable to it, and when it once appears in the wards of an Hospital it is very hard to keep it from spreading, it will very often on such ~~places~~ be produced by the slightest wound operation or irritation of the skin; as for instance from the wound made by a lancet in bleeding, or by that of a scarificator in cupping, or the margin of a blistered surface: three or four cases of which I have seen occur in the Baltimore Infirmary one of the most severe fatal cases I ever saw, occurred in a boy in the Infirmary from ~~the~~ the division of the prepuce. he was seized with Erysipelas five days after the operation, and although treated with great skill by the physician in attendance, died on the morning of the fifth day.—

It sometimes occurs spontaneously in different

regions of the body without any cause that can be assigned for it, there being no external wound. It may also arise from pressure, the continued use of a bandage, laying in one position for a long time, and frequently stimulating applications to ulcers producing several cases of which have come under my notice.

Varieties - I shall describe ~~the~~ three forms or varieties of this disease - The Simple, the Phlegmonic and the Oedematous Erysipelas.

Simple Erysipelas - This is the mildest form of the disease, the inflammation here is confined to the skin, which is hot, dry, smooth, red, & shining; the color varies from a deep scarlet to a yellowish red hue.

The swelling is very inconsiderable in this form of the disease, so much so indeed as in some cases to be scarcely perceptible. When the inflammatory action is of a higher grade, effusion will take place in the cellular tissue beneath, and when this occurs the swelling is proportionally increased. The pain is of a pungent burning kind, very different from the throbbing sensation experienced in a phlegmon, and is greater or less according to the intensity of the local disorder. From ~~the~~ & the fourth or fifth day after the appearance of the disease, vesication

form on the inflamed skin, and after this the pain begins sensibly to diminish. The vesicles are sometimes numerous and small, and at other times large, and in a few days either break and discharge their contents, or dry and are converted into yellowish scabs which after a time fall off sometimes leaving the skin entire and at other leaving it abraded; sometimes the inflammation goes off without vesication. In some instances it disappears suddenly from one part and makes its appearance in another and will occasionally travel in this way over the whole body. When it manifests this disposition it is denominated erratic, and must then be closely watched, as it is sometimes attack the brain or some of the viscera, and is followed by symptoms indicating inflammation of those organs.—

Phlegmonous Erysipelas. The inflammation in this form of the disease attacks the skin and cellular tissue adjoining it, and frequently terminates in suppuration and sometimes in sloughing of the parts affected. The young and vigorous are mostly attacked with this form of the disease, it also occasionally attacks persons of advanced age, but its progress is longer and the inflammatory symptoms not so violent in old persons.— The extremeties are the parts most frequently attacked with this form.

In all the cases of this kind that I have witnessed the local disease has been preceded a day or two before by symptoms of high inflammatory fever - the patient is seized with a chill, which generally continues about an hour attended with nausea & vomiting, this goes off and he is attacked with pain in the head back and limbs; the skin is hot and dry, and the tongue is coated sometimes white, and ~~sometimes~~ yellow; the pulse is quick, tense, and frequent; after these symptoms have continued from one to two days the local inflammation makes its appearance and this is the first thing that acquaints us with the nature of the disease we have to contend with. The skin becomes slightly red and tumid, and an effusion takes place into the subcutaneous cellular membrane, this form spreads very fast, the redness of the skin becomes of a deep red tint, accompanied with a sensation of burning heat which is almost intolerable. The redness disappears on pressure but reappears again as soon as you take your finger off the part. The disease generally goes on for five or six days, when vesications begin to appear, and then desquamation of the cuticle takes place, or it ends in the same manner as simple Erysipelas. The redness begins to

decline, the skin assumes a yellowish hue, the swelling gradually subsides, the fever abates.
But this form of the disease frequently terminates in suppuration and sometimes in gangrene, instead of the favorable manner stated above. When suppuration takes place the matter is either confined in abscesses or diffused in the cellular tissue. If gangrene takes place the cellular tissue becomes completely disorganised, and looks like tow filled with a turbid purulent fluid, while the integuments deprived of their supply of blood, become livid and often lose their vitality. Two cases of this kind I have seen at the Baltimore Infirmary in the Spring. When these changes take place in the former, the tension gives ~~place~~ way, and the part has a softness which I cannot describe.
Oedematous Erysipelas. This form may be called intermediate between the simple & phlegmonoid, and is mostly observed in those persons whose constitutions are impaired, and have a tendency to dropsical effusion. The inflammation is of a subacute character, the skin is of a pale, dirty red color, is smooth and shining, the heat and burning sensation is not so severe as in the phlegmonous form, and on pressure it pits like the swelling produced by Oedema. This form is liable

to end in gangrene, which may be known by the redness changing to a dark livid hue, and by the cessation of pain.—

The danger from Erysipelas is much greater when it attacks the face and scalp than on any other part of the body. This arises from the Brain or its Membranes becoming involved in the disease. This is supposed to arise from the fact that the capillary vessels and the cellular tissue ~~is~~ are in part continuous with those inside of the walls of the Cranium.

I have seen inflammation of the Scrotum in three instances, the brain was affected from sympathy in all those cases and is much more dangerous than when it attacks the trunk or limbs.

Diagnosis. The rosy hue of the Skin, the burning pains, the uniform swelling, the tendency to spread, the abrupt and irregular border, and the tendency of the disease to suppurate, will easily point out its nature and distinguish it from phlegmon

Treatment. The treatment of this disease is divided into general or constitutional and local. In the treatment of simple Erysipelas, the bowels are to be kept ~~&~~ soluble by light aperients, attention to

ought to be paid to the part of the body on which it occurs and not let it be in the depending position. Scarifying the part and applying warm fomentation to the part, which will be found to be all that is necessary.

The Phlegmonous Erysipelas is the most acute form of the disease both as regards the local inflammation and the fever accompanying it.

Bloodletting - In general bloodletting is indispensable, and particularly if it should happen to occur in the face & scalp, blood must be taken largely & repeatedly until the symptoms of cerebral affection are removed, both general & local. Leeches are very useful when it attacks the face & scalp, a cold lotion applied to the scalp will also be of great benefit.

Active purgatives, emetics, abstinence, cooling drinks and perfect quiet, are the remedies to be used in the begining of this form of the disease. This is the treatment to be pursued with the young & plethoric, in the first few days and when the local and general excitement is such as to allow its being pursued. When it occurs in weak and aged individuals, this treatment would be very injudicious, local depletion may be used with great advantage in such cases with cooling applications whilst we at the same

time sustain the powers of the constitution by nourishment and tonics, and at the same time keeping the bowels open. The Active constitutional treatment ~~it~~ in ~~most~~ ought generally to be restricted to the first five or six days of the disease, as the system in that time begins generally to show signs of impaired energy, if it does not and the inflammatory symptoms continue the treatment must still be pursued.

Scarifications with the lancet— I have seen more benefit from this than from all the other remedies combined; it is suited to nearly all the stages of this disease before suppuration or gangrene takes place, if it does occur; but is used with the greatest advantage in the begining— it will do more than any other remedy to prevent suppuration and gangrene. I have seen it ~~pu~~ in several instances put a stop to the progress of the inflammation in a night; it gives immediate ease to the patient by relieving the congested vessels and the distention of the part, and by the stimulus which the knife gives.—

There ~~ought to~~ be a warm bread and milk poultice applied to the part immediately after the incisions have been made, as it ~~keeps~~ keeps up the flow of blood

and impart to it a soothing influence which is very grateful.

When suppuration occurs an incision should be made to give vent to the fluid, for if left there it will create a great deal of irritation and finally make an ulcer in the part.

When the disease terminates in gangrene, the patient must be supported with Tonics & Stimulants, and a nutritious diet, and the occasional exhibition of mild aperient.

The treament of the Adematous ~~form~~ Erysipelas is nearly the same as that pursued in the simple form of the disease.

The swelling that remains after Erysipelas is to be treated by the application of the bandage.

1835

No.

Inaugural Thesis

on

Hemorhage,

submitted to the examination

of the

Provost, Trustees, and Medical Faculty

of the

University of Maryland

for the degree

of

Doctor of Medicine

by

Walter T. Belt

of

Georgetown

D.C.

1835

When the immortal Bard uttered his profound truism,

"The lunatic, the lover and the poet
are of imagination all compact;"

he certainly ought to have added the medical speculator to the hopeful coterie, for surely, if there ever was a being gifted with the envied faculty of giving to airy nothings a local habitation and a name", he ~~certainly~~ must be that happy person. To be convinced of the truth of this assertion we may read the works of Hippocrates and that host of ancient Authors which followed him, when we will find some of the wildest, wildest and most brilliant hypotheses that ever charmed the world; many of which were for a time the delight of mankind and then fraped to the tomb of all the Capulets." If we are not then fully satisfied, we may turn to the writings of a Brown, a Dorwin, a Broussais, and a Hahnemann, and there we will find sufficient to

confound the understandings of the most sceptical. In these works we will find some of the finest, subtlest, and most fascinating theories that ever were promulgated for the benefit of the human race, and which still continue to puzzle, mystify, and bewilder them; as profoundest critics and commentators; and to confound the understanding of all Hearers. Yet in their writings we read some of the most ingenious systems of medicine; some of the most elaborate and high wrought speculations; and some of the most beautiful ideas that ever emanated from the mind of man: And though the works of a Darwin and a Brown may fail to excite the same admiration, with which they were at first hailed, we still read them with pleasure and must forever regard them as monuments of the ingenuity and sophistry of the "immortal mind"

In no portion of medical science is there a greater disposition to speculate than in that which relates to the capillary system, which appears to be the grow,

jest, and riddle" of pathologists; the ne plus ultra of all their researches; and the habitation of every theory. Secretion, Nutrition, Absorption, Calcification; Pus, Inflammation, and Hemorrhage have their reflective habitations in the capillary system. Much has been written in relation to the nature, uses, and disorders of the capillaries, but so opposite and discordant are the sentiments of Physiologists in regard to these subjects, that the student finds it extremely difficult to determine which opinion is preferable.

Some Physiologists suppose that the arteries pour their blood into what is called the parenchymatous structure of an organ, which is said to be a spongy tissue, and is then taken up after the necessary changes are effected; others have maintained that the arteries and veins are connected by the capillaries. It was the opinion of Harvey, Magendie, and others, that the heart propelled the blood through the capillaries; Bichat, on the contrary, declares that the action of the heart is lost in the capillaries,

and that they possess a contractile power by which they propelle the blood through themselves; and this is, I believe, the opinion of the majority of the Physiologists of the present day. Some have supposed that there were a set of vessels called exhalents, which poure out the secreted fluids; others have denied the existence of these vessels and asserted that secretion was an exhalation, a transudation through the coats of the capillaries. Drs Wilson Philip, Thomson, Hastings and others have from numerous and interesting experiments arrived at the conclusion that the capillaries possess a contractile power; but they differ as to the state of the capillaries in inflammation, Dr Thomson says the blood moves more rapidly in inflammation, Drs Philip and Hastings declare that it moves ~~slow~~ more slowly. Bichat, says Dr Gregory, "appears to have considered the capillaries as altogether beyond our reach" When there is such a discrepancy of opinion who shall decide? Shall we adopt the saying of the Poet?

Our judgments are like our watches none
Go just alike, yet each believes his own.
Shall we rely upon our judgment and select
which seems the most probable from this
map of heterogeneous opinions? or, say with Bichat
that it is beyond our reach. In applying these
opinions to practice the student will be still
more perplexed.

We shall see how they will apply
to the subject of Hemorrhage, a subject which
has caused some speculation in the medical
world.

Hemorrhage is by Dr Eberle who follows Bichat,
defined to be "a disordered state of the vital properties
of a greater or less extent of the vital proper capillary
system, manifesting itself by sanguineous effusion,
or extravasation." But what is this disordered
state of the vital properties? Fever is said to be
a disordered state of the vital properties, likewise
inflammation. But what is the exact difference
of the disordered state of the vital properties
in Fever, Inflammation, and Hemorrhage to

Irritation, which appears to be the sine qua non of most speculation in relation to this subject, will not extricate us from the difficulty. In fever there is irritation, which irritation is the result of stimuli acting upon an organ or structure, whose vital properties are in a disordered state; consequently, it is produced after there is a disordered state of the vital properties of the heart and does not cause that disordered state; it consists in a "morbid action of the heart, arteries, and capillaries," consequently there is an increased action of the heart, arteries, and capillaries, though that increased action is morbid and innatural", and this morbid and innatural increased action of the heart arteries and capillaries is irritation. In inflammation there is irritation, that is, a certain inordinate and hurtful impression on the nervous filaments of a part by which a new and irregular excitement is produced in them, called irritation." as says Dr Chase. In inflammation there likewise exists a "disordered state of the vital properties"

of the part thus irritated or disordered by the unnatural congestion; here the disordered state of the vital properties follows the irritation, or is developed simultaneously. In inflammation there is "an afflux or determination of blood to the capillaries." Therefore, there is in fever an irritation, but an irritation somewhat different from that in inflammation. There is also a disordered state of the vital properties of the capillary system in fever, but there is no afflux or determination of blood to any particular part, though such afflux may take place. In inflammation there is a disordered state of the vital properties of the capillaries. There is irritation, and there is a local determination of blood. In hemorrhage there is a disordered state of the vital properties of a greater or less extent of the capillary system; there is irritation for there is an inordinate and hurtful impulse made on the capillaries, ~~and from excitation~~, which there is local determination of blood, who irritates the fluids. Now is it advisable to cease and say with Otthemo, "I don't know" that all we know is that

we nothing know" at least we think we should be able to discover in what a disordered state of the vital properties consists, and the difference of that state in fever, inflammation, and hemorrhage. Our efforts to do this will be as vain as those of Sisyphus we might sooner try to turn the sun to ice with fanning in his face with a peacock's feather; we must despair till we know more of the nature and uses of the capillaries, where they rise and where they terminate; and it must be confessed, that notwithstanding the powerful talent and ability that have been engaged in writing and experimenting on this subject, that it is as yet involved in inextricable mystery and is as dark as Erebus. Indeed in casting our eyes over the writings that have been published since the foundation of medical science to the present period, we cannot but be struck with the strange, wild, and whimsical hypotheses that have been entertained in regard to the structure, uses, and disorders of the capillary system, and which will

forcing recovering movements of "vasa vasorum" show ability and credulity and are as well calculated to make the weak "laugh to confusion" with in other fields of speculation and of action seem to make them "weep".

In regard to the theory of hemorrhage, Dr Caldwell after pronouncing the reasoning of Dr Cullen on that subject, little clear, but an elaborate and intricate tissue of error (though he with Dr Gregory acknowledges its ingenuity and acuteness) declares that however satisfactory a rational theory might be to the philosopher, it is not essential to the practitioner, I know not what Dr Caldwell would call a "rational theory", but I think a correct theory both satisfactory and beneficial to the practitioner, and till practice is founded on correct theory it will be vacillating and extremely liable to error.

The second clause of the definition says, "it is manifested by sanguineous effusion or extravasation." How does this effusion or extravasation take place? Dr Cheek adopts the

opinion of Bichat, that the blood escapes through the exhalents in consequence of an alteration of their vital properties. This is truly an ingenious conjecture, but a conjecture only; for of the existence of the exhalents there is doubt, they exist only in the mind's eye of the discoverer according to the opinion of some and we involved in the same obscurity that the rest of the capillary system is. So we have only the ingenuity of this opinion in favour of its adoption, for if we had actual demonstration of these vessels, the views of Bichat would be as probable and as deserving of credit as any that have been advanced on this subject. Reil supposes that it takes place by diapedesis, that is, the blood transudes through the vascular extremities, in consequence of deficient vital power in these structures; just as we sometimes find the bile percolated through the cystic coats on post mortem examinations. This is another conjecture equally devoid of truth and not so plausible as the other. For that the blood transudes

through the coats of the vessels both in active and passive hemorrhage seems to me exceedingly improbable; it may pass through them in the passive at least such an opinion has an air of probability, but that it passes through them in the active seems altogether incredible. I should also like to know more about this deficiency of vital force which allows the blood the privilege of passing through the coats of the vessels which contain it. Dutrochet says that hemorrhage takes place by what he calls exosmose through the agency of galvanism. The opinion that the veins imbibe fluids has caused much speculation and much experimenting among physiologists; high names have enlisted on both sides, and the subject has been warmly and largely discussed, ~~on~~ The opinion, that the veins drain like fluids, appears to me to be the one which has been adopted by a majority of physiologists; but wether this imbibition takes place through the agency of galvanism does not seem to be so fully admitted; nor is it fully established that the

blood passes through the vascular extremities by exosmose in hemorrhage; the blood does not pass through them in health, therefore if it passes through them in disease, it must be in consequence of some change in their vital properties or structure, but what is that change? who can tell? perhaps there is some change in the galvanism, by which, the blood which in health coursed in safety through the vessels, now escapes to the great detriment and danger of the patient, Dr Cullen says, and with him Dr Gregory appears to agree, that there must be a rupture of some of the smaller bloodvessels; but this, with the rest of Dr Cullen's theorising seems to have fallen into disrepute; his dissertation on this subject is thought to be too mechanical, it has too much of the hydrostatic system of old, too much about the calibre of the vessel, about its dimensions the thickness of its coats, and too little about its vital properties and irritation to apply to the doctrines of this period of mental advancement

and scientific refinement. Of the which of these opinions shall we adopt? Bichat, Reil, Dutrochet, & Cullen? They are all supported by men of celebrated abilities, and are very ingenious and plausible. I suppose here each must rely on his own judgement.

There has been considerable disputation about active and passive hemorrhage, some boldly denying that there is a just foundation for such a division, others as strenuously declaring that there is. Dr Caldwell asserts, "that passive hemorrhage as applied to living matter is a gross misnomer." He says, "that blood flows from the vessel that contains it, at least in part by the action of that vessel." This is bare assertion, he has no proof that the vessel does propell the blood through it, which is what I understand by "the action of the vessel". Again, he says "hemorrhage arises not from the absolute want of action in the part, but from its wrong

action. The vessels dilate, or rather contract and dilate alternately, when they ought to contract only, and thus prevent the escape of the blood which they contain." I should like very much to know how Dr Caldwell discovered that the vessels dilate and contract alternately, when they ought to contract only. It has been strenuously denied that the vessels from which the blood flows possess a contractile power, and that by as high authority as Dr Caldwell. He has also italicised the words contract and dilate alternately as if he wished the reader should fully comprehend him and be duly impressed with the importance of the subject. Dr Caldwell, likewise, supports the words hypostatic and aplastic; they are certainly very good words and may answer extremely well in their place but do not express what is meant by the terms active and passive according to my idea of them. Passive hemorrhage may sound mechanical and unfit when applied to the nice operations of vitality to the ears of some

Gentlemen, yet surely it is as expressive as any term which we can find in the English language. If there be local congestion in hemorrhage, as there is every reason to believe, and hemorrhage is a sort of sanguineous transudation without rupture or structural lesion of the part, and passive hemorrhage takes place in an exhausted and debilitated state of the general system, which debilitated state of the system would be more apt to suffer the blood to transude through the coats of the vessels, I conceive that hemorrhage may take place without increased activity of the blood-vessels of the part from which the blood escapes.

Dr Caldwell also suggests the words tonic and atonic instead of active and passive. But active hemorrhage may take place when there is a languid and weak condition of the system and when could not with propriety be called a tonic state though it might be called a hypostatic one. Passive hemorrhages take place in malignant fevers

erum, it may be denominated atonic but could not be called adynamic. Dr Eberle advocates the doctrine of active and passive hemorrhage in opposition to Dr Rush who applied it and opposed to Dr Caldwell in support of it opinion. Dr Eberle advocates it on the ground that there are two opposite states of the system in hemorrhage and that the remedies which would be proper in one state would be highly improper in the other, thus alum which is very useful in passive would be very inappropriate in active hemorrhage. According to him, hemorrhages are said to be passive when there is neither sanguineous congestion, nor a sense of heat and fulness in the part, but a decrease instead of an increased vascular activity both of the general system and of the part from which the hemorrhage occurs, the exhalents suffering the blood to escape passively for want of vital activity to resist its entrance and transmission. Now the first clause of this definition

declare that there is neither congestion nor a sense of heat and fullness in passive hemorrhage but I should think that congestion would be more apt to take place in the passive than the active cavity, not congestion in the exhalents, for assuredly that never takes place, but congestion in the trunks which give off the exhalent, if there be such vessels; and it is more probable that the blood would pass through the exhalents when there is congestion. The definition says the exhalents suffer the blood to escape passively for want of vital activity to assist its entrance and transmission, certainly the exhalents want vital activity to assist the entrance and transmission of the blood, if they were capable of assisting the entrance of the blood there would not be any hemorrhage either active or passive according to Dr Eberle's idea of hemorrhage, for he says the blood escapes through the exhalents both in the active and passive cavities, but whether the blood escapes passively or

the latter rarely or whether the exhalents contract and refill it through I am unable to decide. The definition also says "there is a decreased instead of an increased vascular activity, both of the general system and of the part from which the hemorrhage occurs." This clause of the definition will not apply to all the varieties of hemorrhage as Dr Eberle acknowledges, for there may be an increased activity of the general system and a decrease in the local activity as sometimes occurs in Hemorrhoids. Dr Eberle class with passive hemorrhages those which take place in malignant fevers and cause the petechiæ and vibices, and those which occur in scurvy. They may be active hemorrhages, but generally they are more transudation of the blood through the coats of the vessels. Tom Jones appears to be extremely liable to hemorrhagic discharges, for it is observed that many fists throughout life without experiencing this affection but very seldom while there

are constantly harrassed with it in one form or another. There are some curious cases related of this liability to hemorrhage. Mitchell relates a case of death from hemorrhage, produced by a scratch of the thumb nail. Several relatives had previously died in the same way. Dr Beck in his work on medical jurisprudence quotes a case from Mr Bladen where death was caused by the extraction of a tooth. The coats of the arteries were found on dissection very thin and transparent. Many children have died of hemorrhage caused by a division of the gum in dentition while thousands have escaped unharmed. What this liability to hemorrhage depends upon, it is impossible to say. Some authors have declared that there was sometimes a hereditary predisposition to hemorrhage, but in our present state of ignorance as to the state of the capillaries which constitute hemorrhage, it would be fruitless to attempt to seek out the cause of this hereditary predisposition.

Different hemorrhages occur at different periods of life, as epistaxis during childhood, hematuria during old age, &c. &c. Dr Cullen has written what Dr Gregory calls an "acute & learned & pathological research" in elucidation of this subject, but his explanations are thought to be too mechanical — to this opinion irritation and sympathy are the dominant notions of the day. Hemorrhages have been observed to occur periodically. Dr Caldwell, in his notes to Cullen's Practice, finding that we had not enough of what he calls Cullen's "curious specimens of the Rostrook of fancy," has selected one, and that is the influence of the moon on hemorrhage, and appears to believe that the moon has some influence in the periodicity of its occurrence.

There are several varieties of hemorrhage, I shall commence with Hæmoptysis, a spitting of blood, from αιμα blood and πτυω to spit. This term is generally applied to hemorrhages from the respiratory organs

whether it proceeds from the larynx, trachea, or bronchia, according to Dr Eberle, though it may with equal propriety be applied to that which proceeds from the glands, for we generally spit out the blood when it comes from them. "Hæmptysis" according to a certain author, is generally from some fault of the lungs; the extremities of the blood-vessels being worn off by sharp humors in a thin blood, so as to let out their contents and suffer it to be coughed up," and when there is plethora evacuations are to be used; but if there be an increased velocity of a thin blood, agglutinants are to be made use of and coolers." This definition has now passed out of fashion. If the lungs are without air-cells, if each of the bronchial extremities terminates in a blind extremity, in a cul de sac, and this cul de sac is formed by the mucous membrane lining the bronchia; if such is a fact, and also a fact that the pulmonary artery

pour the blood into the parenchymatous structure of the lungs; how does a hemorrhage take place? certainly not through the capillaries, not by transudation, nor by exosmose, nor by rupture. Does the blood which is poured out by the bronchial and pulmonary arteries trap through the mucous membrane which forms the cul de sac and thus produce hemorrhage? if it does, there must be some alteration in the vital properties of this membrane to allow the blood to escape for if there is no such change, why does not hemorrhage occur more frequently, as I think would be the case if the blood merely trapped through the membrane without a change in its nature. But this is only one side of the question; many have denied the existence of this cul de sac and asserted that there were air cells in the lungs and Dr Horner's experiments on this subject seem to have been conclusive with many writers, ~~[illegible]~~ and if such is the case it will be vain to endeavour to discover how hemorrhage takes place

from the lungs. It may also be asked what hemorrhage proceeds from the bronchial or pulmonary arteries? but it will be useless question. Phthisis from ἐκπτύω to spit from is another variety of hemorrhage, and I am inclined to think that there is a rupture of some of the small vessels in this variety; it is generally considered the least dangerous kind and more easily stopped. There are several other varieties of hemorrhages, hematemesis, hematuria which are generally symptomatic, hemorrhoids and menorrhagia. "The hemorrhages which take place in the period of collapse of malignant fevers seem to depend upon a paralysis of the capillary system". What does Dr Eberle mean by paralysis of the capillary system? Does he use the term in a figurative sense? oh! I suppose he means that the whole of the capillary system loses the power of contracting and thus allows the blood to escape through the exhalents.

There is a variety of exciting causes of hemorrhage, most of them act mechanically and produce congestion in the part from which the discharge proceeds; as that however inexplicable the nature of the change which occurs in the vital properties, many of the exciting causes admit of an easy explanation, such as indurations of the liver and spleen, engorgement of the mesenteric and the piles, which are well calculated to produce congestions in these parts. Also great exertions, as loud and long speaking, singing, laughing, which may produce congestion in the lungs and head; great exercise, lifting heavy weights, mental excitement; causes which obstruct the free circulation of the blood, as crassis, ligatures tumours pressing on the blood vessels, coarctation &c &c. Cold winds drives the blood from the external surface and produces internal congestions. Many of the causes, it is ex-

parent produce congestion.

Various hypothesis have likewise existed, some that circulation among effeminate, some admit it, others reject it as an impossibility. The haematemesis, which occurs in young robust females suffering from suppression of the menses, is said to take place vicariously; but this is extremely doubtful, the menstrual flux is a secretion, and not a mere effusion of blood, and it is very questionable whether an extravasation of blood can ever happen in the place and usurpe the purpose of the menses.

That effusion of blood, which takes place from, ulcers and the stomach and other parts periodically, is thought to be a mere indication of an excited state of the system which generally takes place when the menses flow.

Treatment of Hemorrhages.

It was a favourite doctrine of the celebrated Dr Cullen and his followers, that the cure of hemorrhages ought to be left to the conduct of nature; that it is often a salutary effort of the system to obviate and relieve such disorders; that it is consequently generally to be encouraged, often solicited, and not to be suppressed unless it goes to great excess, or happens from parts in which it may be dangerous. Much of this doctrine is now thought to be ultra rem tuitam, and therefore to be discarded from the treatment of hemorrhages, although in some cases it may hold good, as in epistaxis when it occurs in consequence of congestion in the brain, when it would be thought unadvisable to stop it immediately

In the treatment of hemorrhage, several important considerations present themselves, namely; the state of the general system, whether plethoric, or whether hypectic? What are the exciting causes of the hemorrhage? is it an active or passive hemorrhage? When there is plethora or hypersia bloodletting is indicated. We should always endeavour to remove the exciting cause of the hemorrhage. The remedies which have been generally recommended to reduce local action and to produce contraction of the vessels from which the blood flows, are astringents; of these the principal are the acetate of lead, alum, muriated tincture of iron, sulphate of zinc, uva ursi &c &c.

To attempt to explain the modus operandi of astringents would be presumptuous after the failure of some of the mightiest minds of the profession. Some have declared that they act

by sympathy, but they have not told us how this sympathy acts. Darwin's hypothesis that they act by absorption is altogether inexplicable. Dr Murray's supposition is this, "that hemorrhage, when it does not arise from solution of continuity, depends upon the force of contraction in the extreme arterial branches not being sufficient to resist the impulse of the blood from the larger branches, a deficiency of contraction generally owing to a debilitated state of these vessels; and that astringents by their gentle tonic, together with their coagulating quality are calculated to remove this debilitated state." This opinion will militate against some of the theories of hemorrhage and consequently will not by many be adopted. Dr Cullen's opinion, that they produce contraction and condensation in the soft solids, and thereby increase their density and cohesion, is one of those

with that of Darwin's. Dr Eberle candidly confesses, that he knows nothing about this action, and I think this opinion as worthy of adoption as any that have been advanced on this subject. May not some of them enter the blood and act directly upon the vessels? Acetate of lead seems to be mostly relied upon in hemorrhage of the uterus, Dr Dewees speaks very highly of it. Uva ursi was at one time supposed to be very beneficial in hematuria, but it is now thought that it has acquired a false reputation and that it is not as efficacious as was at one time supposed. Muriated tincture of iron has been celebrated in hematemesis likewise purgatives and common nettle. Cold, digitalis, ergotine, alum have been recommended. Ipecacuanha has also been recommended, especially in menorrhagia, though it is difficult to explain its modus agendi. Aloes, Farina have been highly recommended

by some as remedies of great utility in hemorrhage from the uterus, and though by some, they may be thought to be calculated to increase rather than diminish a flow of blood, yet in passive hemorrhage, where there is a want of of action, they have been declared by very respectable authority to be remedies of undoubted efficacy.

Emetics have been praised for their virtues in hemorrhage; Dr Sheridan, Chapman, and others speak of them as very useful in hæmatemesis. They have been recommended by some and condemned by others in hæmoptysis, it is not thought that in hæmoptysis they are of very doubtful utility. It is generally agreed that they are more beneficial in menorrhagia than in any other variety, and Dr Eberle in his Chapter on Emetics has given a very satisfactory reason for their being so, as well as a very plausible account

of their modus agendi, Muriate of Soda, or according to the new nomenclature Chloride of sodium which was introduced to the profession by Dr Rush, (who, I believe, derived his information from an old woman) has been a very common remedy in hæmoptysis, and though not much valued by some, is undoubtedly productive of very happy effects occasionally. But how to explain its action is a difficult problem for solution; it may unquestionably prove beneficial in active hæmorrhage by reducing arterial action, but whether that is the only way in which it acts or whether it may not undergo decomposition in the stomach, as free muriatic and acetic acids have been discovered there I am unable to say. Venæsection, emetics, potassa, digitalis, Cold reduce arterial action.

How shall we explain the action of these different remedies

according to these different theories? How do they restrain hemorrhage by the exhalents? how by transudation? how by exosmose? how by rupture? How do they correct that "altered state of the vital properties" which occurs in hemorrhage? How do they make the vessels contract only, instead of contracting and dilating alternately? How do they counteract that state of the exhalents in passive hemorrhage which allows the blood to escape passively? It will be in vain to attempt to answer the above questions; they have foiled the brightest luminaries of the science; they are questions which, it is to be feared, will ever remain as limits to the researches of the "immortal mind".

1835

An

Inaugural Dissertation

on

Pericarditis

Submitted to the examination

of the

Provost Trustees and Medical Faculty of

the University of Maryland

For

The Degree of Doctor of Medicine

By

Robert H. Ayres

of

Baltimore

Maryland

Professor N R Smith M D of the University of Maryland. this paper is most respectfully dedicated. And as my Preceptor, and friend, I should be found wanting in gratitude, not to express the deep sense of respect for his talents and virtues and a grateful remembrance of his unremitting exertion to promote and facilitate my Professional Studies

R W H Ayres

Pericarditis

The pericardium is composed of two membranes an outer fibrous, and an inner serous. It is situated in the lower part of the anterior mediastinum above the aponeurotic centre of the diaphragm. It is connected anteriorly with the pleura, the thymus gland the sternum, and the cartilages of the sixth and seventh ribs of the left side: posteriorly with the bronchial tubes the œsophagus, and the descending aorta; laterally with the pleura, the phrenic nerves and the inner surface of the lungs. The serous membrane is much more extended than the fibrous; for after lining the inner surface of the pericardium it entirely covers the heart and is continued upon the aorta above its first curve; to the right it is reflected upon the superior vena cava, to the left upon the pulmonary artery before its

bifurcation, and upon the right pulmonary veins immediately after their issuing from the lungs. The inner surface of this membrane is smooth and glistening, every where in close contact with itself and is moistened with a serous fluid to prevent ill effects from the heart's motion

The pathological characters of acute inflammation of this membrane are preternatural redness; coagulable lymph adhering to its surface, and fluid effused with in its cavity. It is not always the case that redness pervades the whole of the inflamed covering; it is not a sure characteristic of inflamed tissues, either serous or mucous, to assume the florid appearance which they usually wear. The deposition of lymph or purulent fluid is therefore necessary to make the general indication sure. In one or two instances mentioned by Laennec, the substance of the heart

itself was found to be in a state of acute inflammation, but they are probably so obscure, that their primary seat must have been located in the lining membrane of the organ. Indeed the most tenable ground is, that when the heart was supposed to be in a state of disease, it primarily arose from an acute inflammation of the pericardium, or adhesion of its surface, giving rise to the chronic form of the disease. It is the opinion of respectable authors, that one of the best methods which nature adopts to produce reparation, is by pouring out lymph, to restore certain mischief resulting from disease, provided the inflammation does not terminate by resolution, which is still more favorable. It is the opinion of others, that adhesion is desirable, in those cases in which the heart

and pericardium are highly inflamed, hence this should not be the case, the quantity of fluid both serum and lymph would be so profuse, as to fill the cavity of the membrane, and the embarrassment of the heart action would be attended with fatal consequences

Symptoms

The common opinion in regard to the general signs of this disease is, that they are varied and multiform, but still there is no doubt, but the same degree of precision may be obtained in ascertaining this inflammation, as in that of any other serous membrane. The usual symptoms are inflammatory fever, a pungent, burning, lancinating pain in the region of the heart, very similar to that which arises in Pleurisy. The heart's action is greatly accelerated, and the arteries of the

superior extremity beat violently, and there is great fullness in the precordia. The respiration is deep and hurried, and when full the pain is much more acute. The pulse is sometimes feeble fluttering and irregular, and at the onset, is full, hard, and jerking. The tongue is coated and the skin suffused with cold clammy perspiration. The countenance indicative of great restlessness and anxiety and a constant fear of death's approach. Sometimes the disease maintains this character throughout, and at last terminates in two or three days, after intense suffering and great agony.

In regard to the principal causes which give rise to this form of disease, most writers at the present day seem disposed to agree in most particulars. The most satisfactory of these however, are some

external blow, or mechanical pressure in the region of the pericardium, or inflammation induced from its contiguity to the lungs or pleura, or metastasis of acute Rheumatism, or inflammation in general. Cold has been said to be another of the principal exciting causes I should suppose that strong mental emotions, or an inordinate use of ardent spirits, would more frequently promote the appearance of this formidable disease, and indeed any cause that would stimulate the heart to undue action, or performance of its office, if continued, might assist in developing the symptoms

Prognosis

This disease was once considered incurable by the celebrated Corvisart and others of no less reputation, but late abundant experience has shown, that its symptoms may not only be palliated, but an entire cure may be

made, though it is one of the most alarming of all the diseases to which the human family are liable. The recurrence of the disease (after the violence has abated) seems to be more dreaded (as in all cases of relapse) than in diseases of less magnitude. But generally, the prognosis is unfavorable, as it often degenerates into the chronic form

Diagnosis

Pericarditis in almost all its symptoms seems so nearly allied to Pleuritis, that it requires the strictest scrutiny to make up a correct opinion in regard to it. The same anxious expression of Countenance, accompanied with paleness, in this disease, are often to be found in Pleurite; and many other diseases, where there is any morbid action or impairment of the vital organs going on. Purely our best judgement and skill

should be summoned in cases of such momentous importance. He should thoroughly examine and seek out the suffering organ, and our best remedy speedily and promptly applied.

Treatment

The antiphlogistic plan of treatment must be employed in a most energetic manner. A few hours of delay or doubt, must certainly seal the fate of the patient. Blood should be taken from a large orifice in the arm, even to the verge of syncope. Leeches has been highly recommended, to be applied in the region of the heart, but it is my opinion that their use may be resorted to, now successfully, under mild forms of the disease. They are not expedient in such cases, where the patient is assailed with such alarming symptoms as above mentioned. It is true their employment may be relied on, under some circumstances, but unfor

luxuriately the volume of the disease is nearly the same in all cases, at least so much so as to require our utmost ability to combat its fury. "Where there is a tendency to cachexia, I make no doubt, but our best local means of abstracting blood is by the use of cups. Twenty ounces of blood taken in this way will sometimes be attended with the most salutary consequences. There are other important means which should not be neglected. The condition of the stomach and bowels must be attended to. If the bowels are in a torpid condition, a purgative enema may be indicated. Sulphate of Soda with senna forms an excellent one in these cases. Ten grains Calomel with as many of the comp. ext. of Colocynth & two or three of Hyos. must be given; succeeded by an infusion of senna, if it does not act

in tions sufficient for your purposes. Mucilaginous cooling drinks may be allowed the patient in almost any quantity, Supertartrate of Potash form one of the most valuable of our diluent agents, in diluting the blood to make it less stimulant to the heart Tartrate of Antimony has been strongly recommended, given in nauseating doses, from one sixth to an eighth of a grain. Sometimes it is our misfortune to see all our remedies perfectly futile, while the disease makes rapid strides to a fatal issue At one moment our hopes are raised to the highest pinnacle, at the next, our hopes and our patient are levelled alike. The reason of this is obvious, unless the effused lymph and serum be absorbed it is most sure to give rise to adhesion and a destructive and painfull disease

is the consequence. Depletion here is of no avail and our only refuge in this disease is Mercury which will cause its absorption as strongly mani-fested in Iritis, this alone must be our sheet anchor from five to eight grains of Calomel, or ten to fifteen of Blue pill accompanied with Opium three times a day. Commencing after bleeding and purging will generally produce the desired effect

1835

Inaugural Dissertation
On
Digestion;

Submitted to the examination

Of the

Honble Provost, the Medical Faculty, & Trustees

Of the

University of Maryland

For the Degree of

Doctor of Medicine;

By

Geo. W. Wilson.
of Maryland.

It is not my intention in this dis-
-sertation to speak of the changes which
the food undergoes in the mouth and
oesophagus: but merely to consider briefly the
most important changes which take
place in the stomach and intesti-
-nal canal.

When the food has experienced the necess-
-sary changes in the mouth by the re-
-peated efforts of deglutition it reaches
the stomach; where by the contraction
of the inferior extremity of the oesophagus
and pyloric orifice of the stomach; it is
retained for several hours, and under-
-goes the first portion of true digestion.

In proportion as the aliments are ac-
cumulated in the stomach this viscus
becomes distended and if it is carried
to a very great extent, the abdominal
viscera becomes compressed, the diaphragm
is elevated respiration becomes short

and hurried, the abdominal parieties are put upon the stretch, and the person feels somewhat feverish; which symptoms indicate that digestion is about to take place. The food having accumulated in the stomach; this viscus is excited to increased action, the mucus membrane becomes red and injected with an increased quantity of blood, the secretions are poured out more abundantly, and the aliments are closely embraced by the stomach. The food undergoes very little change for the first hour. After this time has elapsed, there takes place a contraction of the pyloric orifice of the stomach; which soon extends to the whole viscus, and there is kept up an alternate contraction and relaxation which is called peristaltic action.

By the oscillatory motion communicated to the aliments; they become intimately commingled with the gastric fluids, and is converted into a soft pul

-tacious mass, of a sweetish taste and
=grayish colour, which has a slight
acid taste called chyme. Beside those
agents which have been mentioned (that are
concerned in the formation of chyme) the
temperature to which the aliments are
exposed in the stomach (which is about
32 degrees of Rheumar) bears an important
part in this process.

Digestion takes place from the circum
=ference of the alimentary mass towards
the center; that portion of the mass which
is in immediate contact with the sur-
=face of the stomach, being changed first
it passes on to the pyloric orifice and
a fresh portion is brought in contact.
Thus it is digested in ~~thin~~ layers until
the whole mass is consumed.

The time which is necessary for the for-
=mation of chyme, depends on circum-
stances. In persons of a strong and heal
=thy constitution and who takes considera-
-ble exercise it is not so long whereas in those

of a more delicate habit and who leads a sedentary life it requires a much longer time. The quality of the food also influences the time very much; vegitable aliments ~~requiring~~ much more difficult, than animal. The most usual time however is said to be between four & five hours.

Having viewed briefly the changes which the aliments undergo in the stomach we next pass to the consideration of the nature of those changes. This is a point which is involved in much obscurity.

Notwithstanding the numerous theories that have been advanced on this subject the most of them appears to be founded on hypothises. While some of the ancient philosophers, were of opinoin that it depended on putrifaction, others supposed it was concoction. Another doctrine is that of fermentation they supposing that there were some kind of leaven, in the stomach which acted on the aliments. There are various other doctrines that have been advanced.

upon this subject, of which it is unnecessary that I should speak. The doctrine which appears to be the most plausible, and on which has the most advocates is that of chemical solution: which is that of Spallanzani. This gentleman proved by experiments on animals; that by placing a portion of well masticated food in hollow metalic balls pierced by a number of small holes; and causing them to be swallowed that chymification was still affected.
He also proved that by placing food after it has been well masticated and mixed with gastric juice and exposing it in hollow tubes or small glass vessels to a heat equal to that of the stomach that chyme was stil formed.
Notwithstanding the plausibility of this doctrine it has met with its adversaries. Whatever may be the nature of the change upon the food in the stomach: certain it is that by the heat to which it is exposed, the compression and motion which it receives

combined with the agency of the saliva and gastric fluids chyme is formed. It would be unreasonable to suppose that the two first of these agents (namely heat and compression) could perform a very active part in this process and the nature of the saliva will not allow us to suppose that it could have a very active effect; although I have no doubt they are all very important auxilliaries. Therefore as the gastric juice is the only remaining fluid: I think it would be rational to conclude that this fluid is the active agent in the formation of chyme. Indeed the experiments of Spallanzani go to prove this position. It is also supposed that the branches of the eighth pair of nerves has an important influence in digestion: but according to Magendie the nerve of both sides may be divided; provided they are cut below where the branches are given off to the lungs so that respiration may not be injured; without preventing digestion from going on. The nature of the chyme varies in proportion as the food may differ.

Having now spoken of the changes which take place in the stomach; we next pass to the consideration of those which take place in the duodenum.

As the chyme passes from the stomach into the duodenum; the construction of the pyloric orifice prevents it from regurgitating backwards into the stomach again.

After the chyme has reached this portion of the intestinal canal: we find in the first place this organ stimulated to increased action, its mucus membrane becomes red and injected with blood, this stimulus being continued along the ductus communis choledocus, to the liver and pancreatic duct to the pancreas the bile and pancreatic juice are poured into this intestine in a considerable quantity and the chyme being well ~~well~~ mixed with ~~with~~ these fluids undergoes a kind of second digestion. It has been denied by some that the bile or pancreatic juice has any influence in digestion; believing they exert

their influence; merely by thinning and dissolving those particles of aliments which has not undergone chymification in the stomach. It has also been proved that the fluid secreted by the mucus membrane of the intestines has very little or no part in digestion.

But notwithstanding the experiments of Messrs Lassaigne and Leuret (namely those of tying the ductus communis and pancreatic duct and chyle being still formed) goes to prove that the biliary and pancreatic juices has no part in digestion: yet I think unless we admit those fluids, to have some agency in the formation of the chyle: digestion in this portion of the alimentary canal will be difficult to account for. To what extent the action of those juices go toward the formation of chyle or whether they have any influence in that way is by no means a settled point.

But that the chyme undergoes considerable change as soon as it becomes mingled with

these fluids is certain: its taste becomes bitter its colour becomes yellowish and it also looses much of its sharp odour.

After the chyme having undergone these changes: by the peristaltic action of the intestine it passes slowly into the jejunum and in its passage; as the chyle is formed it adheres to the mucous surface of the intestine to be taken up by the absorbents. The passage of the chyme is very much assisted by the mucus which is exhaled by the mucus membrane: but notwithstanding this; its progress is very slow owing no doubt in part to the valvulæ coniventes; and partly also to its having to pass against its own gravity some portion of the way: This slow progress allows the chyle time to seperate from the chyme.

Before the chyme reaches the lower portion of the ileon it is deprived of all of its nutrient particles and is converted into a mass approaching to excrement

This excrement then by the contraction of the lower portion of the ileon is passed through the ileo-cecal valve into the large intestine where it is submitted to its last alteration. The valve prevents this matter from regurgitating; and by the peristaltic action it is forced onward through the whole extent of the large intestines to the rectum.

During its passage through the large intestines the faeces are deprived of their fluid parts and acquire more consistency and more or less fetor. When the faeces reaches the rectum this portion of intestine being somewhat extensible they collect there in considerable quantities the sphincter muscle prevents it from passing involintarily. After remaing in the rectum for some time the faeces becomes irritating their quantity increasing, also the irritation produced by the weight and size becomes so troublesome that we are obliged to through them of.

1835

An Inaugural Essay on Phrenitis

Submitted to the examination of the Provost, Trustees and Medical Professors of the University of Maryland

By Samuel T. Knight

"A knowledge of the structure and functions of the body is the basis of all rational Medicine, Doctrines, Systems, and Theories, which will not bear an examination by the tests of Anatomy and Physiology are only to be regarded as random guess work or idle dreams."

Mr Lawrence's Introductory Lecture

1835

the Medical Professors

Gentlemen

In selecting a subject
r my Thesis much difficulty presented itself, the
umerous diseases that afflict mankind and are interes-
ng to Physicians have already engaged the attention and
hausted the ingenuity of other candidates for Medical
egrees. independently of their productions, the various dis-
ses have been treated of by Medical Writers of the first
te. such being the case it was a long time before I could find
subject genial to my taste, my Mind like the Patriarchs
ove wandered from subject to subject but found nought
o rest upon;

I have at length concluded to write on Phrenitis.
nd I now for the first time launch my frew into the great
ocean of Medical Science, with the hope that the envenom
ed Shaft of criticism may never be directed here.

And Gentlemen for the Interest which you have
always taken in my Studies, for the kindness with which
you have ever imparted information to me, You have my
warmest gratitude. for the urbanity and gentlemanly
manner in which You never failed to treat me. I respect
You. And believe me that in whatever quarter of the Globe
Providence may direct my footsteps, whatever may be my
situation in this transitory Life; I will ever remember the

Medical Professors of the University of Maryland with the most sincere regards — Farewell.

Phrenitis

By Phrenitis Pathologists understand an inflammation of the Encephalon & its investing membranes. this disease is placed in Cullens Nosology in the Class Pyrexia and order Phlegmasia, the parts most subject to inflammation are the Cineritious & most vascular part including the Corpora Striata, the Optic Thalami, Convolutions, Pons Varolii and Cerebellum.

Causes of the Disease

The causes of this disease are various, long exposure to the Hot Sun, as riding on horseback, Sudden and violent mental excitement as anger the excessive use of wine, inattention to diet, Metastasis, as of Rheumatism Gout Erysipelas. diseases of the Skin and Mechanical violence as blows, Falls, &c

Symptoms

The Symptoms of Phrenitis vary with the stage, in the first period or that of irritation, there is an exaltation of the intellectual sensitive and Locomotive faculties hence headache irritability of the eyes and ears, delirium, Convulsions, Countenance frowning distorted and animated, painful pricklings of the limbs which are contracted and tremulous.

Gradually the irritative period abates in intensity and is succeeded by the second or that of collapse in this last which is that of disorganization or compression there is Vice Versa, a diminution or total loss of the above functions hence coma, obtuseness of the senses, weakness, paralysis, the muscles falling into this state with flaccidity Countenance destitute of expression, Eyes closed but from the relaxation of the Muscles that elevate the lid

over

falling of the lower jaw the commissure hitherto contracted and drawn to one side relaxes pupil dilated if the affection be general all the functions are simultaneously disordered, when partial the functions over which the affected part alone presides is injured hence partial Paralysis

Diagnosis

The only disease with which Phrenitis can well be confounded is Synocha or inflammatory fever and here it is extremely difficult to form a correct diagnosis, in Synocha we have a red eye, violent pain in the head and often delirium it is well known that Clutterbuck is of the opinion that Phrenitis is the cause of fever, if this opinion be valid there is no necessity for diagnosis; but this theory like many others in Pathology at the present day will not stand the test of the Scalpel – The symptoms that will lead us in distinguishing Phrenitis from Synocha are the very initable state of the Stomach, the great aversion to light – Should we be so fortunate in Phrenitis as to remove the local symptoms as pain in the head delirium &c the fever ceases: – whereas in Synocha this is not the case and the senses are more irritable in Phrenitis than in Synocha –

Prognosis

When we reflect upon the delicate structure of the organ involved in Phrenitis its great vascularity and its extensive connection with other parts we cannot but conclude that the prognosis in this disease must be very unfavorable; and experience too truly confirms this opinion.—

We can here as in all other diseases only judge of the danger by the violence of the symptoms — If the pain in the head be excessive with delirium, deafness, and grinding of the teeth we may view the patient as extremely ill, but should the following symptoms take place we will be warranted in considering the patients chance of recovery as truly a forlorn hope, viz. coma. Strabismus, coldness of the extremities, respiration sterterous. & feeble pulse. they denote a fatal lesion of Brain

Termination

This disease may terminate either in resolution, effusion, suppuration or gangrene—

Post Mortem Appearances.

In the first period the cortical substance is found of a rose colour, the white or fibrous of a violet and both are injected, tuméfied and slightly indurated. and may be compared to the state which characterizes erection, when cut into it appears studded with red points, called by the french Pathologists taches du sang

Treatment

The essential character of Phrenitis as declared by its symptoms and revealed by Post mortem inspections is a high and rapidly disorganizing inflammation of the substance or membranes of the brain the Therapeutical agents employed in its treatment are bloodletting general and local, blistering, fungatives refrigerants, mercury and Digitalis, I shall make a few remarks upon each of the above remedies. With regard to the first it is evidently the sheet of our hopes the "Magnum Dei donum" we should bleed from a large orifice so as to make a sudden impression upon the vascular system; the patient should be placed in an erect position and bled until syncope takes place or until a decided impression is made on the pulse—

Doctor Good recommends the opening of the external jugular vein or temporal artery where the disease attacks adults.- Sims is also in favour of cutting the temporal artery; he says that bleeding of 12 or 14 ounces from this artery he has found better than 30 ounces from the arm— Cups & leeches are spoken very highly of after general bloodletting— they should be applied to the back of the neck— We can say very little in favour of Blisters; they should never be applied to the head as they are apt to augment the irritation of the brain.

Purgatives

Purgatives act in three ways in this disease, first they clear the alimentary canal of all irritating matters, secondly they deplete from the general system by augmenting the secretions and thirdly they act as revulsives by determining the blood to the intestines. The purging may be assisted by injections and these should be in their nature of the harshest kind.

Refrigerants

Cold should be applied to the head this may be done by means of cloths soaked in cold water and placed on the head, or by putting small peices of ice in a bladder and laying this on the head.

Professor Dewees objects to cold being applied to the head on the ground that the external vessels become constringed and the vis therefore thrown on the brain - Dr Hosack states also that he has seen it injurious from the increased flow of the blood to the seat of the disease which follows its use - But the mass of evidence is in its favour

Mercury -

Dr Percival gives the history of a child of his own aged 3 years and 3 months in which a perfect cure was obtained by this and nothing else, In 48 hours signs of amendment appeared, and 6 days the child was well - during which time 13 grs of calomel had been taken and seven scruples of strong mercurial ointment had been rubbed into the legs *

Drs Dobson & Gelis also recommend its use;

* Edinb^s Med Comm. vol 6 p. 224 -

Digitalis

This article has been recommended by some of its merits we know little, never having seen it used in this disease, Dr Good says when used early it has seemed serviceable, but it should be avoided in the second stage of the disease unless indeed it be employed as, by Dr Gelis to smooth the passage to death, by diminishing the violence of the convulsions that usually precede it;

And lastly the patient should be kept perfectly quiet and placed in somewhat of an erect posture as much so as is agreeable to his feelings, the stimulus of muscular exercise should be carefully avoided, he should not be allowed alcohol or animal food in any form whatever. I should have mentioned before that Sinapisms applied to the feet after depletion has been fully used, so as not to augment the cerebral excitement but to promote a translation of it to the feet is of great use in Phrenitis

1835

Inaugural Dissertation
on

Blennorhœa
for

The Degree of Doctor of Medicine

Submitted to the examination of

the Honorable Provost Trustees
and

Faculty

of the University of Maryland.

by

John P. Wedersthandt

of

Louisiana.

The disease treated of in the following pages is one of such frequent occurrence, so well known to the Medical world, and one on which such a number of able treatises have been written, that I am confident any attempt towards further illustration of its Pathology, or more appropriate management would be justly deemed presumptuous in a tyro in the healing art.

But having revolved in my mind the greater number of its composing the black catalogue of the Nosology, a consciousness of my inability through inexperience to do justice to maladies of a more interesting nature induced me to select Gonorrhea for the theme of this dissertation, having had an opportunity of witnessing it in its various forms with the treatment generally pursued by those whose superior surgical attainments have raised the reputation of the Baltimore Infirmary to an eminence to be envied by the patrons of any similar institution of the present day.

The term Gonorrhea applied to this disease is derived from the two Greek words γονη- Semen,

and ρεω to flow, signifying a discharge of Sperm, but modern Surgeons very improperly have used it to imply a running of infectious purulent matter from the Urethra of the male and from the meatus urinarius, vagina and Labia of the female.

Within late years the term Blennorhea etymologically flow of mucus in some degree approximating the reality has been used by writers on this subject, but the pathology of the disease at once shows the impropriety of the appellation, wherefore with reluctance we are bound to yield to the tyrant general usage from whose dictates there is no appeal, and shall proceed with our subject, not attempting to innovate upon the ancient nomenclature.

Cause

Pathologists have long been divided in opinion concerning the identity of Gonorrhea and Syphilis. Among those who have contended with the greatest ability to support the doctrine of the identity of the two venereal diseases stands the celebrated John Hunter the brightest luminary of modern surgery

A number of arguments sufficiently plausible to the inexperienced and superficial observer have been adduced by this great man in corroboration of his favourite theory, but having impartially weighed their respective merits truth leads us to the conclusion that they are totally inadequate to prove the fallacy of the following positions which must stand forever incontrovertible. First. The poison producing Gonorhea never produces chancre, neither does the virus of Syphilis ever cause Gonorhea. Second. Mercury never accelerates the cure of Gonorhea, on the contrary every Gonorhea may be cured without Mercury without danger of Secondary Symptoms supervening. Third. The virus of Gonorhea never produces constitutional Syphilis. Fourth. The means ordinarily used in the cure of Gonorhea are invariably of no avail in the cure of the genuine Hunterian chancre. Such are the reasons which must compel all unprejudiced investigators to consider the cause of this disease to be sui generis, by a virus formed by a morbid action of mucous exhalents of the parts whence it originates, and capable of being propagated by inoculation.

A specific inflammation primarily located in the mucous membrane of the Urethra of the male a short distance above its orifice in the Fossa Navicularis chiefly affecting the lacunæ mucosæ Morgagni and their excretory ducts. From this point it extends in many cases higher up the urinary passage involving the membranous portion Caput Gallinaginis and neck of the Bladder. Allusion has already been made to the doctrine of the identity of Gonorrhea and Syphilis, which for reasons adduced was considered to be wholly untenable. Admitting the virus of this disease to be sui generis according to the well known axiom of pathology when an irritating matter of any kind is applied to a secreting surface the natural secretion of the part becomes increased in quantity and altered in quality. Thus it is conceived that by the contact of virulent substance the mucous secretions of the urethra become changed in character as to become identical in nature with infection from which they originated and rendered capable of producing similar results. It is not however my intention to maintain that Gonorrhea must ensue from an impure congress, on the contrary there is great reason for supposing that in some cases not unfrequently in the female it may be occasioned by neglecting to the cleanliness of the parts, especially during such

periods as she may be under the influence of her accustomed evacuations. The surface of the female urethra is also subject to discharges strongly resembling the subject of this treatise though totally distinct in reality, for instance an effusion of purriform fluid has appeared on the cutting of a tooth by sympathy of the urethra with the gums, this canal is also sometimes the seat of Rheumatism and Gaut. It was proved by Mr Hunter contrary to the opinion which had universally prevailed previous to his day, that this morbid secretion did not always proceed from ulcers, but that pus might be secreted without breach of substance, this was proved by the examination of subjects in whose pleura pus effused was detected which was certainly the result of inflammation, but no traces of ulceration were anywhere discernible. It was also ascertained by the dissection of criminals who were known to have been executed while suffering with this disease, and in all such cases the urethra was found devoid of ulceration. When any irritation not specific has produced inflammation in the soft parts a secretion of matter takes place the intention of which appears to be to wash away the irritating substance; but in inflammations caused by specific poisons it is obvious that the matter effused being in quality equally as

ting as that intended to be removed must perpetuate the
ace even if the venereal inflammation were not like many
similar species kept up by its own specific quality,
tunately in Gonorrhea this phlogosed condition of the
y membrane is removed by the gradual loss of sensibility
parts to the action of the infectious matter whereby
subsequent virus is incapacitated for the further propa-
on of the disease in tissues implicated in the destructive
s. This constitutes undoubtedly one of the kindest efforts of
e with which we are acquainted to aid us in our remedial
, and which is of itself not unfrequently sufficiently com-
to arrest the progress of morbid actions. constituting gonorrhea.

Symptoms

isease appears at very different periods after the infection ac-
g to the irritability of the constitution. The usual time is
the fourth or fifth day it has rarely shown itself within
rst and instances are recorded of its having continued dor-
for a fortnight. The initial stage is characterized by an
g in the glans with soreness along the line of the urethra,
after which the discharge appears on pressing the ori-
of the urethra in the form of a whitish pus.

In a day or two this discharge increases in quantity
assuming a yellowish aspect, and in proportion as
the inflammation augments all the symptoms
become aggravated.

This purulent discharge gradually increases in quantity, becomes more yellowish attenuated and irritating in quality, the burning or scalding pain accompanying urination is situated as the patient will describe about an inch within the orifice of the urethra at which part the passage feels peculiarly straightened or contracted; the urine flows in a small and interrupted stream the lips of the urethra are thickened and inflamed to a cherry redness with intolerable tension.

When the inflammation proceeds more deeply than the membranous lining and affects the reticulated structure of the urethra it produces therein an extravasation of coagulable lymph the consequence of which is a chordee distinguished by involuntary erections with incurvation of the penis creating excruciating pain. The malady may now be considered to have reached its acme. Frequently at this stage we meet with a most annoying Phimosis caused by the increased spread of the inflammation now attends, and we may observe a long line of lymphatics in a highly phlogosed condition extending along the dorsum of the penis, the inguinal glands being likewise swollen and excessively painful on pressure.

occasionally one or both testicles become extremely tender to the touch with pain throughout the spermatic cord. Much constitutional irritation invariably supervenes upon the inflammation being thus extended from the urethra to neighbouring structures, when the disease has advanced thus far harrasing sensations of burning and titilation in the neck of the bladder and anus are experienced and cutting pain in the perineum on urinating which can only be effected gutttatim. The swelling of the Testes often alleviates the primary symptoms by creating revulsion and the discharge of puriform fluid is much diminished; now and then some of the engorged capillaries of the mucous membrane are ruptured and a quantity of blood escapes much to the relief of the unfortunate sufferer. The period of declension is so variable as to defy the severest scrutiny of the observer to affix limits to its duration, it is distinguished by a general subsidence of the more annoying symptoms, the scalding in urination diminishing the erections are less frequent and painful, the venus acquires a greater consistence presenting a whitish ropy appearance. Such is the ordinary form of Gonorrhea which is however liable to a multitude of variations, some of which in a few cases simulate the charater of Lues venerea.

According to Carmichael, who among modern writers has probably bestowed more attention on venereal complaints having had extensive opportunities for such enquiries, not unfrequently the matter of Gonorhea in the first instance not penetrating the urethra in the infectious congress, but being absorbed by the external surface of the glans creates great irritation with a discharge of attenuated acrid fluid from the glandulæ odoriferæ Tyronis, rarely this irritation is succeeded by small ulcers involving the inner surface of the prepuce and frænum sometimes accompanied by a tormenting Phymosis. These ulcers are distinguished from the syphilitic in exhibiting a smooth level and nearly circular surface slightly raised above the surrounding skin, having a healthy colour without granulations or induration, presenting more of a fungoid aspect.

Gonorhea is sometimes, though very rarely succeeded by certain secondary affections, which supervene in those cases characterized by these small ulcers just described, and it is the opinion of Mr Travers no mean authority in these matters "that these constitutional symptoms never occur unless preceded by these primary ulcerations", these are distinguished by painful swellings in the groins where the glands subsequently become much enlarged and indurated.

there appears also a chronic inflammation of the fauces generally diffused and superficial the surface of the velum and Uvula being often roughened with innumerable small tufts of white lymph, or pitted, with shallow indentations; where ulceration has taken place, clean fissures of the tonsils such as are not unlike Syphiloid sometimes accompany the train.

Papular eruptions varying from a pale red to a deep crimson colour, ushered in by pyrexia, pain, redness, and swelling of the joints, these eruptions ~~which symptoms~~ follow successively not originating simultaneously, some of them are merely pimples, while others partake more of the pustular form. In a brief space are here enumerated and described the generality of what ~~which~~ are by many styled the secondary affections of Gonorhea, but whether the disease is ever followed by such symptoms as have been described is to me a matter of doubt, because they all bear the strongest resemblance to Secondary Syphilis, and probably were only a consequence of that disease appearing perhaps long after the primary indications had disappeared, or it may have been that true chancres in reality existed during the Gonorhea but in parts such as the interior of the Urethra concealed from the view of the observer.

and what corroborates this view is, that the same remedies are resorted to for their removal, which are so highly efficacious in constitutional Syphilis.

Treatment.

This is to be modified materially accordingly as the different stages of the disease may require. For the inflammatory form, and anti-phlogistic course in the strictest sense of the term must be adhered to, any indecision or disposition to temporize on the part of the physician will inevitably lead to consequences tending greatly to perplex himself, and protract the sufferings of the patient to an unwarrantable extent. By energy and boldness the disease may now be speedily arrested in its course, and every untoward symptom in the sequel certainly obviated. To effect this we must resort to venesection, and local depletion by leeches from the member, one good blood-letting will in general be sufficient to make an obvious impression on the disease, and to aid the operation of the internal remedies, but the leechings may be renewed until the

phlogistic appearances are evidently on the decline, the flow of blood from the kidneys may be promoted with advantage by continued ablutions of warm water, and afterwards a warm bread and milk poultice may be applied which will be found highly soothing in its action.
Rest quietude, the lowest diet consisting of mild articles such as small quantities of rice, flaxseed tea barley water, sago or tapioca are the most preferable and above all total abstinence from spirituous and fermented liquors. The bowels must be opened by an ounce of Sulphate of Magnesia with the fourth of a grain of Tartar Emetic, which dose may be repeated every second or third day, pro re nata. Should the inflammatory condition prove tardy in yielding to these first efforts of the physician, it will be necessary to keep the patient for a few days under the influence of Tartar Emetic by administering half a grain of the article every hour, this course has been long pursued at the Infirmary and in most cases with the happiest results. It will sometimes occur that the swelling of the penis, will

continue after our primary depletions, this may be also attended by excessive heat tension and a burning sensation, in such cases free scarification should be resorted to followed by an emollient poultice, this practice I know to be productive of great benefit from personal trial. Cold evaporating lotions consisting of the Liquor Plumbi acetatis dilutus, and the usual spirituous and anodyne compounds, may be applied to the inflamed surface so long as relief is afforded, warm infusions of poppy heads or of chamomile flowers when once prescribed will be often desired by the suffering patient these are among the most soothing and grateful applications among our resources. The use of demulcent drinks already alluded to viz Barley water Infusions of Slippery Elm, Solutions of Gum Arabic or Tragacanth must be rigidly persevered in by the patient, these by medicating the Urine and shielding the highly irritated surface of the urethra from its contact with cantharides largely to alleviate the pain on evacuating the bladder and assuage the intensely heating sensation of the suffering parts.

When after the use of such remedies the inflammation of the parts shall in some degree have subsided, evinced by the diminution of swelling in the penis; the puriform discharge becoming more thickened and ~~[illegible]~~ of a yellowish colour no longer imparting a green stain to the linen, and somewhat devoid of its acrimony: the urine causing less of the burning pain on evacuation, the phymosis or paraphymosis being wholly or partially removed and the distressing priapisms of less frequency, it would now be not improper to venture on the use of the Balsamic or Terebinthinate remedies.
Regarding the employment of Balsam Copaiba a diversity of sentiment has for a long time and still exists among practitioners, some ~~[illegible]~~ prescribing it in all stages of the disease even in its most inflammatory forms, and declaring it to be productive of the highest utility, in no instance aggravating the phlogistic symptoms desired to be subdued, while others on the contrary consider it to be an article exciting in its action calculated to promote the inflammation when of a high grade, and to be used only when the object

of depletion shall have been obtained.
Having had no experience in the indiscriminate use of this agent I am unable to speak of its effects under such management but I can bear ample testimony to its efficacy in the subacute grade of Gonorrhea. The only difficulty attending its exhibition is the inability of many to retain it when taken as it is very liable to disorder the stomach, this may be obviated by the addition of some of the Tinctura opii and mixing it in a solution Gum Arabic, the following formula is among the most common. Rpt. Copaib ℥j Spt. Nit. Dulc ℥ss Tinct. opii et Camphor aa ℥j Gum Acac ℥ij Aquæ ℥vj M. of this a dessert spoonful may be given every two hours. The powdered buchu administered under the same circumstances as the Copaiba is given has been long extolled for its virtues, and in relaxed leucophlegmatic habits it has certainly proved beneficial, in the gleety form I know of few remedies we can resort to with more advantage, it is however to be remembered that buchu being an article of a stimulating nature, care must be taken in its exhibition during active inflammation.

very recently a combination of the Secale Cornutum with the Piper Cubeba in the proportion of five grains of the former with ten of the latter was introduced into practice in the Infirmary having come highly recommended, in some cases the disease retrograded under its exhibition, but on the whole it failed in realizing the hopes of its employers. When the disease has lost its irritated character and has assumed a strictly chronic condition the Spirits of Turpentine in union with Copaiba and Cubebs may be given according to the following formula ℞ Balsam Copaib et Pinct Cubebis ā ā ℥j Spirit Terebinth ℥ss Pinct Opii ℥j Sacch Alb ℥j Gum Acac ℥ij Aquæ Font ℥viij. one teaspoonful thrice daily. It must be kept in mind that the use of these medicines must be continued for days after all discharge has ceased, otherwise it is very liable to recur. When after long continuance the discharge is kept up by an atonic condition of the secreting lining membrane of the urethra, nothing is more beneficial than the occasional introduction of medicated bougies which by their stimulation induce a new and healthy action in that tissue. Stimulating injections, of Solutions of Sulphate of Zinc —

and Acetate of Lead are generally prescribed in Gleet but the greatest caution is requisite in their employment as they frequently bring on Strictures, in the Infirmary they are seldom employed the use of the bougie having been preferred, the Tincture of Cantharides in doses of 30 drops thrice daily until Strangury supervenes and resumed after this and the ardor urina subsides is one of our best remedies in Gleet.
If among other symptoms Orchitis should occur it may in general soon be relieved by continued rest in the recumbent posture Leechings, and keeping the part wet with Infusion of Chamomile flowers or Poppy heads, or any of the cooling Lotions. Chordee generally coming on at night must be prevented by occasional anodynes. To remove Phimosis we must persevere with internal medicines such as are in common use, the greatest cleanliness of the Glans should be preserved, this may be effected by injections of tepid water under the prepuce, and the part should be kept wet with cooling lotions. Paraphymosis is to be treated with warm ablutions of soap and water repeated often during the day, and when painful tepid infusions of opium may with great advantage be applied.

Among the more annoying symptoms demanding the attention of the Physician is the superventon of Bubaes, these however being totally distinct in character from Syphilitic are found to yield readily to the ordinary discutient modes of management. The strongest necessity for abstinence from exercise and all other irritating causes must be urged upon the patient, which with rest, low diet and occasional copious leechings will be found materialy to expedite the cure, cold evaporating lotions are useful, but should these discutient means not succeed, and the suppurative inflammation ensue, it should be promoted by warm emollient poultices medicated with opium should the pain demand, timely incisions should be made in the tumour when the suppurative process is sufficiently advanced to admit of the free evacuation of pus, the poultices should be continued untill granulation commences when the cure will be accellerated by dressing with simple cerate or spermaceti ointment. Should these tumours assume the indolent form the application of blisters succeeded by mercurial plaster will be necessary. The constitutional effects of Gonorhea when they do occur

yield to cleanliness, the use of diaphoretic alterative ptisans, viz the compound decoction of Sarsaparilla and Guaiacum, should they not accede after this treatment a mild mercurial course may be necessary, with the frequent use of the warm bath. The dilute Nitric acid cases warmly recommended by Pearson and Travers, and should an opportunity present I should prefer the use of it to mercurials.

Nineteen pages have thus been devoted to the description and treatment of this disease, and it would certainly be an act of supererogation to inflict more of my views on this subject upon the honorable Faculty, fully aware of its copious imperfections, I trust entirely to their kindness and clemency to excuse what maturer experience might render more worthy of their observation.

1835

An Inaugural Dissertation,
On a form of Fever which appeared
last fall,
Submitted to the
Provost, Trustees & Faculty
of the
University of Maryland
For the degree of
Doctor of Medicine
By
C. R. McClellan of Baltimore.

Respectfully Dedicated
To
William H. Davis M. D.
As a testimony of esteem
By his sincere friend
The Author.

The object of Physiology is to ascertain the relation which exists between the different organs, which compose the human system. Much research has been employed in numerous investigations, and the present state of the science bears the best testimony, to the zeal and talents of its cultivators. A close examination of facts is ascertained to be the only method, by which general principles can be accurately deduced; or, in other words Physiology is a science of induction. No reasoning a priori could have demonstrated the functions of the nervous system, nay, to what vague theories did it give rise, nor was its office determined, till observation and comparative anatomy revealed it. But why should we instance examples for confirming an admitted truth. Our knowledge of Physiology teaches us that "when all the functions are harmoniously performed health is the result, but if any one or more experiences aberration disease is induced". The object of Pathology is to point out this aberration, to show its influence, & to suggest means for its removal. When this deviation & its effects are local, diagnosis is generally easy, but when in consequence of this

the constitution is affected, it may be more difficult to fix upon the offending part. Thus in many diseases, we are unable to determine the condition of the internal parts, till examination after death unfolds it. If induction is important to physiology how much more is its agency requisite to ascertain any vice in the system, which may give existence to disease. It was from a conviction of this fact that examinations after death were made, and the appearance of parts differing from their healthy aspect noted. Comparing these results with the symptoms existing during life, satisfactory evidence of the cause of death was adduced, if not the precise manner in which it was brought about. Since pathological anatomy has been cultivated, diagnosis has been much facilitated, and appropriate therapeutical agents suggested, but still there exists as much variance as to the Pathology of Fever, as there did a century ago. How is this difference to be resolved? All admit by an appeal to facts. How is it then, that if all base their views on facts, that we perceive such conflicting opinions - The truth is we have such a multiplicity of facts, that it

would really be strange if all tastes could not be suited and all views frown. But these facts are not in all cases true, many of them are hearsays, many handed down from generation to generation, many derived from the reports of those who were incapable of discriminating between cause & effect; and most of all from the imagination. Add to this our prejudices, the reverence we have for the authorities, the fact that we are apt to see things as we wish them to appear and there may not be as much difficulty in resolving these "facts" as at first sight appeared.

In investigating subjects of discussion in proportion as the evidence is doubtful the value of correct testimony increases. And now a call is heard from all quarters for well authenticated post mortem accounts of fever cases. On this account I have selected as a suitable theme for this paper, "The Bilious Remittent Fever which appeared last summer & fall at the Baltimore Alms House", for an examination of which opportunity was afforded me in the capacity of resident student.

The individuals who were so unfortunate as to contract this disease, were without exception, parts

of cargoes recently exported from Germany, who had been engaged some weeks, prior to their admission to the Infirmary of the Alms House, as labourers on the Rail Road, between Baltimore & Washington. The country in which they worked was but scantily supplied with springs, & it was with ~~with~~ difficulty they obtained sufficient water to quench their thirst, consequently they repaired to their "schnaps" with frequency. Their food was coarse & of a character different from what they were accostomed to. Their lodgings were in temporary shanties, very open, exposing them to the miasmatic emanations emanating from the low marshy grounds in their vicinity. When they were first taken sick, the known unwillingness of that class of people to take medical advice prevented them from applying for such assistance as could have been afforded on the road. They took nothing for their malady unless copious draughts of the panacea of their trade, Whiskey. When they were admitted they were generally in about the eighth day of fever, a circumstance much to be regretted, as their disease required prompt energetic treatment, and when they came to our hands little

short of creative power could save them.

The disease was characterized by prostration, approaching to typhoid, dull expression of countenance, complexion pallid, pulse intermittent occasionally slow & full then in a few beats becoming quicker & so alternating. respiration slow, skin dry and hot, or covered with a cold clammy sweat, head very hot, pupils insensible, breath offensive, covered with a dry hard umber colored texture so different from the healthy epithelium as not to deserve that name, this was sometimes bathed with a copy mucous following the finger ~~with a copy~~ when lifted from the organ, teeth covered with sordes Epigastrium tender on pressure, alvine dejections frequent, thin, black & extremely fetid, often mixed with blood, petechiæ, coma.

Case. No. 1. Cooper, Æt. about 35 was admitted July 13th with a fever of eight days standing, he represented his chills as having been very severe, and the fever following it so high as to keep him delirious for some time - it is now assuming a typhoid type - pulse rather full but extremely soft, tolerably frequent, skin hot & dry, suffused with bile, as well as his eyes, tongue dry, coated brown, with red edges; eyelids heavy & sluggish, pupils

contracted, general torpor of the whole man. He was put on the mildest diet, cupped over the epigastrium, where he complained of tenderness, treated with small doses of Pro. Chlo. Hyd. & Pal. Ipecac. for two days which produced but little change. On the third day he was blistered behind the neck and ears, this appeared to rouse him from his sluggish state, he perspired freely, the tongue became clean and moist, pulse more tense but quicker. The fourth day found him still improving. On the fifth small doses of Carb. Ammonia & Infusion of Serpentaria Aristolochia, were administered, as stimulants. On the sixth he began to grow worse, his perspiration became clammy, his tongue dry and black his teeth covered with sordes, his eyes closed, & he himself so dull as scarcely to be aroused into answering a question, blisters were applied to his temples. On the seventh his other bad symptoms increased, in addition to singultus & he died at night.

Autopsia. Brain. consistence natural, arachnoid membrane thickened with lymph thrown out on its surface, vessels all engorged, a little serum in the left ventricle. Thorax. Healthy. Abdomen. Liver a little enlarged, when cut into showed an increase of

of the yellow substance over the brown. Spleen enlarged and softened. Stomach presented numerous patches of inflammation almost tending to ulceration. Duodenum also inflamed, and indeed the whole alimentary canal showed spots at no distant intervals of high inflammation.

Case 2. Beamer, a negro, Æt 30. received to day in a moribund state, in the very last stage of typhoid bilious fever, could give no account of himself & died an hour after admission

Autopsia - I am induced to mention this case on account of the extreme similarity of the post mortem appearances. With the exception of the duodenum being in this case entirely free from inflammation, the description of the condition of the last patient suits that of the one under consideration exactly.

Case 3. Weise Æt. 40. attacked with fever eight days previous to his admission, pulse frequent but neither very full or strong - skin sallow - of nearly natural temperature on the extremities, but burning hot on the abdomen and forehead - much epigastric tenderness thirst, slight diarrhea, tongue slightly furred, moist, and red - intense head ache, great debility, answers rational

ally – Cups over the epigastrium to ℥xvi – absolute diet gummy drinks. (10) Stools very fetid, has fallen down several times between the bed & the close stool pulse becoming more contracted & frequent, skin covered with a copious cold perspiration (13) Some amelioration in his symptoms, pulse a little fuller does not complain of pain in the abdomen on full pressure – (14) all the symptoms heightened – covered with cold clammy sweat, anxious respiration, after suffering until noon he died. Autopsia – Head. Arachnoid thickened, opaque, cineritious portion of the brain a dark ash color, cerebral substance in general injected, presenting numerous red points when cut into. Thorax. Lungs engorged, blood and mucous oozing from incisions made in them. Abdomen. Externally the viscera looked healthy but the mucous membrane was red throughout particularly at the pylorus of the stomach. The whole course of the colon was thick & purple, but without ulcers –

Case 4. John. Æt. 35. was admitted on the 14th day of fever. Has taken a "few powders" – Skin dusky of a livid yellow, relaxed, and covered with cold perspiration, eyes dull & heavy – low delirium, pulse of mod-

erate softness and frequency but small. Heat over the epigastrium intense, the rest of the surface except the head nearly of natural temperature. Tongue dry the epithelium loosing and feeling like a piece of horn, red at the edges and besmeared with a fuligi nous deposit, teeth gums & lips covered with sordes, gums bleeding, nostril plugged with lint for violent epistaxis. M. M. Cups over the Stomach. Calomel. P. Camphor. aa grs v every 2 hours. Infus. Christ. Serpent. wineglassful every 4 hours – Gummy acidulated drinks. He continued to live three or four days gradually sinking, exhaling a most fœtid odor constantly muttering something to himself & expired calmly. Autopsia twenty four hours after death. Head. On cutting through the calvaria the brain was found so soft as to render a minute examination impossible. Thorax. Lungs. Healthy. – Abdomen. Inflammation visible on the peritoneal surface of the Stomach, which for some inches around the cardiac orifice presented a beautiful carmine color – On opening the viscus every possible grade of inflammation was seen from a light pink to black and in many parts the mucous membrane was raised from the other coats by air effused in /

in the intervening cellular tissue. The same appearances were traceable throughout the whole extent of the canal with the addition of large ulcers in the ileum and colon - This emphysema is assumed by some as one of the evidences of acute inflammation - such it undoubtedly was, for although twenty four hours intervened between death & the examination with the exception of the marked softness of the brain, there were no signs of putrefaction, and some gentlemen present who had served long apprenticeships in opening intestines at every possible periods after death never witnessed a similar appearance.

5. Bauer, Æt. 34. was admitted on the tenth day of fever, apparently much better than his companions, as he was quite strong, & without the usual symptoms of prostration, but his vague look, & vacant smile signed incipient delirium. Pulse tense & fast, tongue red around the edges, and coated with a white fur. Conjunctiva injected, forehead & abdomen very hot, pain in the stomach, & the whole course of the colon. Venesection to ℥xv. Calomel ʒss et Pul. Ipecac gr j - Sulph. Mag. Third day, delirious all last night, raving incessantly - jactitation, pulse slow &

and weak, tongue dry & beginning to brown - Cups to the epigastrium to ℥xvj - afforded slight relief. Cold lotions to the head, Epispastics along the whole course of the spine & the calves of the legs. - Fourth day. Pulse weak without effect the raw surface dressed with. Ung. Hyd. Nit. Comatose, picking faces involuntarily, pulse a vapor, died. Autopsia. Brain as in Case 3. Thorax. Lungs greatly engorged - Abdomen. Liver natural dark colored, engorged - Peritoneum here & there slightly inflamed - Stomach much inflamed, a large ulcer in the greater curvature. Duodenum almost exfoliated, excoriation about the ileo-cecal valve. Some purulent blood in the ascending colon under the mucous membrane - Such a mass of disease I suppose was scarcely ever seen.

Case 6. Tuppe, Æt. 40, much emaciated, thin light hair of nervous temperament, he was incapable of giving satisfactory answers to any questions - high fever of typhoid character, pulse soft & weak, so much exhausted as to be incapable of rising from his bed, the sides of which were notched by planks to prevent his rolling off - pupils not sensible to light, head & abdomen very pain ful, tongue almost cylindrical, dry, cracked, coated black. Skin dry & hot, petechia - R. R. Calomel ℈j. Pulv.

Antimon. grij – Saline Cathartic. Epispastic at the ches. Diet. Pleased tea. The Calomel was continued in gr x doses for two days, when ptyalism was produced in consequence of the Hospital being scoured – and a sudden change of the weather – looks much better, the crust on the tongue cleaning off & exposing a red surface. For four weeks he continued gradually improving under an absolute diet and an attention to his symptoms. He was a Knight of the thimble and it was thought that that occupation was not unsuitable for him in his present condition, strict directions were given him as to his diet & he was discharged from the Hospital – But he might as well have shotten to a swine, for the same day he was discharged he feasted heartily on bacon and cabbage, which produced a violent dysentery, which carried him off in a few days – No autopsy made –

We might content ourselves with this simple statement of facts, confident there can be but one opinion as to the pathology of <u>this</u> fever. But if we can show that the gastro enteritis observable in all cases is capable of explaining all the symptoms of the disease we shall hold it infeasible that was the cause of the disease.

When the stomach is only slightly affected, headache is experienced, when the bowels are in a torpid state the same condition is perceived, and when the stomach is inflamed the brain is always affected, & if this condition continue the membranes of the brain are not unfrequently phlogosed. An instance of delirium tremens without inflammation of the stomach is rarely met with.
External injuries of the head such as wounds & contusions, & concussion of the brain invariably sympathetically affect the stomach through the medium of the nerves The two organs are so intimately connected that when one is affected the other sympathises, hence arises the disturbance in the circulation, respiration, & in part the suppressed state of the secretions -
When the stomach is inflamed, digestion rendered difficult or entirely prevented, the system wastes & becomes debilitated. And there are but few articles which can be placed in the stomach which do not add to the irritation -
In mucous membranes the sympathy which exists between contiguous parts is so great, that when inflammation exists in one spot it may on this account be propagated in a short space of time to a hundred.

in consequence of enteritic inflammation, absorption be it venous or not is in a great measure prevented, hence the great difficulty of obtaining the usual results of the therapeutical agents; this so great, may also be explained by this fact, as also the dry state of the skin.
The liver on account both of continuous, & contiguous is affected so as not to secrete its peculiar product & the bile continues to go the round of the circulation adding to the mischief already existing in the system.
Thus we think that the Physiological Doctrine holds here, if we have been mistaken, it is ~~not~~ for want of evidence, and our future practise in this disease will be much modified by the principles of Broussais.

A Treatise on Cholera Spasmodic 1834

1

The disease termed Cholera Morbus which is generally known by the copious bilious discharge differs from the cholera only in this respect. Whereas in the common Cholera Morbus there is both vomiting and purging tongue with bile, in the cholera there is not the least trace to be discovered [illegible] symptoms which will warn [illegible] danger, the common [illegible] disease raging, if a person has a [illegible] stomach he immediately anticipates [illegible] disease, and takes the proper precaution to escape; if he neglects to stop the diarrhoea by proper medicines in a few days the disease becomes fully developed. The disease first commences with vomiting, and after the patient has thrown off every thing he has in his stomach, purging commences. On the contrary, sometimes there is no vomiting, or if there is, it is from cause from an atonic state of the stomach under which that organ receives and retains whatever may be poured into it, as it were a dead substance. In the majority of cases the purging is a more constant symptom than the vomiting, and is the first in the order of occurrence, but being a less troublesome

To the Medical Faculty
of the University of Maryland
The following pages are submitted
by James G. Coombe
of Washington City D.C.

A Treatise on Asiatic Spasmodic Cholera.

The disease termed Cholera Morbus which is generally known by the copious bilious discharges, differs from the Asiatic Cholera only in this respect. Whereas in the common Cholera Morbus, there is both vomiting and purging tinged with bile, in the Asiatic Cholera there is not the least trace to be discovered; it has distinct premonitory symtoms, which will warn us to shun the approaching danger; the common Cholera has none. When the disease is raging, if a person has a violent diarrhaa and pains in the stomach he immediately anticipates an attack of Asiatic Cholera, and takes the proper precaution to escape; if he neglects to stop the diarrhœa by proper medicines. in a few days the disease becomes fully developed. The disease first commences with vomiting, and after the patient has thrown off every thing he has in his stomach, purging commences. On the contrary, sometimes there is no vomiting, or if there is, it soon ceases, from an atonic state of the stomach, under which that organ receives and retains whatever may be poured into it, as if it were a dead substance. In the majority of cases the purging is a more constant symtom than the vomiting, and is the first in the order of occurrence, but being a less striking

24 Structure on chaotic Harmonic Motion.

The diverse terminal behaviors of a certain is generally known by the certain behavior displayed from the chaotic behavior only in the market. Whereas in the commonly behavior harmonic there is both oscillating and changing tempo with all in the chaotic behavior there almost the least tempo is discovered; it has distinct harmonic dynamics which will serve us to show the displayed changing of the commonly behavior harmonic. After the discovering of a tempo has a steady direction and pattern the tempo immediately modifications on effect of chaotic behavior and take the proper harmonic to create it to displeasure to start the chaotic behavior harmonic in a few-day the chaotic becomes fully chaotic behavior.

The diverse first commonness with commonting, and after the distinct has therefore left every thing be harmonic this alternately, changing commonness. On the contrary a positive there is no commonting, or of there is it never cease, from an atomic state of the terminal, already which that upon reaching and returns unchanged. Hence the harmonic it only it never a chaotic behavior.

On the majority of cases the changing is a harmonic constant dynamics than the commonting, and is the least in the order of occurrence, but being a life alternating

deviation from a state health than the vomiting, (which immediately arrests the attention) it has usually been spoken of as occurring subsequently to the latter. Purging has very seldom been altogether absent, and when it has, we may expect a malignant form of the disease to shew itself. There is seldom much griping or tenesmus although the calls to stool are very sudden and irresistible. They also, sometimes accompany vomiting attended by spasm, and when this takes place there is a suspension of the pulsation at the wrist, as if all of those symptoms originated from one common cause. In advanced stages of the disease, the purging sometimes stops, but in many cases, discharges similar to this boiled rice, takes place in every change of position. The matters evacuated after the first emptying of bowels, have been occasionally observed to be of a greenish yellowish colour, a turbid and frothy appearance, like yeast; and sometimes bloody, but in a majority of cases the discharge is of a serous looking fluid, so thin and colourless as not to stain in the least, the patient's linen. Sometimes the serous looking fluid is so thickly incorporated with mucous as to present the

appearance of milk. The quantity of the clear watery fluid, which is sometimes discharged, is very great, and were it uniformly so, it might afford an easy solution of the debility, thirst, thickness of the blood, and other symtoms; but it is unquestionable, that the most fatal and rapid cases are not those that have been accompanied by excessive discharges. Death on the contrary, has ensued in innumerable instances, after one or two evacuations. without the developement of any other symtom affecting the natural functions. And it has been said that even collapse has come on before any evacuation by stool had taken place. The undisturbed state of the mind is worthy of remark; instances have been mentioned where patients have pursued their usual avocations, even after the circulation has been so much impeded, that the pulse could not be distinguished at the wrist. The voice also partakes in the general debility, for it is feeble and broken, and in general the patient evinces no disposition to converse. Spasm is not essential to this disease, for in many cases, and more particularly in the weakly and feeble, it is frequently absent; it appears more frequently among the inhabitants of Europe and America than those of India. In the low and most dangerous forms of this disease,

in what country, it matters not, the spasm is generally absent, or if it is present, is very slight. The muscles most commonly affected are those of the toes and feet. likewise those of the calves of the legs, next to these, the corresponding muscles of the upper extremities, then those of the thighs and arms — and lastly those of the trunk. It is an incident worthy of notice, that while only the flexor muscles of the lower extremities are affected with spasm, those of the upper affected are the extensors, the recti muscles of the abdomen are likewise affected, there is also a twitching in the fingers. The period at which a marked diminution of vascular action takes place is somewhat various — the pulse sometimes keeps up tolerably for several hours, though very rarely; it more generally becomes small and accelerated at an early stage, and on the accession of vomiting or spasm, suddenly ceases to be distinguishable in the extremities. The length of time a patient will live in a pulseless state is wonderful; and there are instances on record, where they have recovered after being in the stage of collapse. Thirst and sense of heat, or burning in the region of the stomach, are generally connected together, and form very prominant and constant symptoms

in this disease. The sense of thirst seems to subdue all other feelings. cold water is constantly called for and when brought is eagerly swallowed; not withstanding the unquenchable thirst, the mouth and fauces are in no want of moisture. The skin is generally cold and clammy; often covered by a profuse perspiration, but it is always cold; the skin is somtimes observed to be dry, though cold, somtimes of a natural heat, and it has been said, as I think erroneously, that in the first stages of cholera there was often a preternatural heat of skin. An increase of temperature has somtimes been observed to take place a few minutes before death, nature at this moment seems to rally, but only in time to feel her own weakness. Respiration in the first stage is not usually interrupted, and in many cases terminating fatally it has proceeded in its mechanical part with little or no difficulty, excepting, as a matter of consequence, it becomes slower. In the state of collapse the breath has a coldness attached to it which is very striking, this is said to be an universal symtom of this stage. The blood throughout the whole body, has been found on dissection, to be

on this disease. The issue of thirst seems to involve
all other feelings, cold water is sought by parched lips
and tongue, through it is apparently recollected; and
contemplating the unfortunately thirsty the
mouth, and fauces are in an exact of inactivity.
The skin is generally cold and clammy; often
covered with a profuse perspiration, but not
always cold; the skin is sometimes observed to
be dry, though cold. Sensations of a contracted
heart, and it too hard and thick are frequently
felt in the first stage of cholera. There was
often a fluttering and heat of skin. The inner
use of tumultuous and agonizing have observed
to take place a few minutes before death, nearly
at the moment death seems to really
times to feel her pulse recede. Sensations in
the first stage is not usually extraordinary and so
many cases terminating fatally it has proceeded in
its mechanical part with little or no difficulty, with
ing, as a matter of consequence, it has remained
in the state of collapse the breath has a cadaverous
offensive fat which is very strikeing. This is not in
an unusual proportion of this stage. The blood thus
passed the state stage, has been found as viscous, let

of a dark colour and very tenacious, and this will not appear surprising, when we consider what large quantities of serum were passed off by stool; and also no difference of character or colour of the blood was found in the right or left side of the heart. In consequence of the rapidity with which this disease runs its course, it is difficult to treat. the immediate attendance of the physician is necessary or it will prove fatal. If he is called in time, he frequently finds the patient vomiting and purging, and when he perceives that there is not the least trace of bile in the matters thrown off, suspects a congestion of the Liver, he immediately proceeds to bleed the patient, after that, gives large doses of calomel to act upon the Liver, or he combines opium with the calomel to allay irritation. If there are cramps attended by pain in the abdominal muscles, he places a sinapism over the region of the stomach; if the extremities are cold he also orders sinapisms to be placed on them, he also resorts to friction with some stimulating liniment. If the patient becomes weak, he uses stimulents. I will now give the practice of many authors who have described this disease. In Europe and America

of a stark colour and deep tenacity, and this will not
infuse anything, unless we consider what large
quantities of serum were injected off by blood; and also
the difference of character or colour of the blood vessel
in the right or left side of the heart. Observing one of the
patients with which this disease runs its course,
it is difficult to treat. The immediate attendance
of the physician is necessary or it will prove fatal.
If he is called in time, he frequently finds the patient
vomiting and purging, and unless he observes that
there is not the least trace of bile in the intestines
throws off, produces a congestion of the stomach. He
immediately proceeds to blind the patient, after
that, gives large doses of calomel to act upon the
liver; he combines opium with the calomel to
allay irritation. If there are erratic attacks
of pain in the abdomen, vomiting, he places a
mustard plaster over the region of the stomach; if
the extremities are cold he also administers
to the patient an ether mixture to prevent
with some stimulating liniment. If the patient
becomes weak, he uses stimulants. Much more
space the brevity of many authors who have
described this disease, the Scientific and Dominion

the premonitory symptoms are diarrhœa or some intestinal disturbance, marked by flatulency, - sudden calls to stool, and the matters ejected chiefly consist of a serous looking fluid mixed with mucous. Some authors have extolled blood letting, others never employ it. Dry frictions have been recommended, the object of these is to cause a determination of blood to the skin, and restore the equilibrium to the circulation. Liniments have been employed with some success, but their usefulness depends on the quantity of friction that has been used. If the Liniments fail rubefacients are the next in order, aided by stimulents. Embrocations with ardent spirits are evidently injurious, for by evaporating, they increase the coldness of the skin. Blisters have been used. Vesication by cantharides is entirely too slow, to have recourse to in such a disease as Cholera. Among the other means, hot water and nitric acid have been emmerated; the moxa & vapour bath have also been used. The hot bath is said to be excellent in the state of collapse, but some consider it too enfeebling in consequence of the sweat that follows its use. Opium. No medicine has been used that has had so great a mass of testimony in its favour

Nearly all practitioners, notwithstanding the difference in opinion concerning the pathology of Cholera, have used it in some form, in some one of its stages. Calomel has, and always will be considered our greatest remedy in this disease. It relieves by its stimulating properties the congestion of the liver, if it is used with this intention it should be given in large doses, it can also be used in smaller doses as an alterative. When we can by its use produce bilious discharges, we have nothing of consequence to fear but the consecutive fever. Opium to allay pain has been combined with it, and in most cases with success. But its efficacy has been denied by the Russian physicians, for they thought it to do more harm than good, and therefore abandoned it. In Dünaburgh no calomel was administered, and of 745 cases many of which were in the last stage when first seen by the physician, only 75 terminated fatally. By many physicians, Emetics were used with success, but Dr Lefevre say's he did not meet with any success when he used them. The whole class of Emetics have been used by various practitioners, Purgatives have been used by every person, in this disease. Astringents have been

of early all practitioners, notwithstanding the difference
in opinion concerning the pathology of diabetes,
have used it in some form in some of its stages.
Rational has not always with discriminate use great
at necessity in this disease. It relieves by its
stimulating properties the congestions of the liver
if it is used with this intention it should be given
in large doses, it can also be used in alkaline
doses as an alterative. With the exception of
produces bilious discharges, we have nothing of
consequence to fear but the consequences given.
Opium to allay pain has been combined with it,
and in most cases with success. But it appears
has been abused by the American physicians, for they
thought it to do more harm than good, and they
have abandoned it. Dr. Cullenough recommend use
administered, and of late quite many of which numerous
the last step when first seen dyspepsia, only 1/3
terminated fatally. Dr. Young physicians practice
were used with success, but Dr. Taylors says he claims
not must with any success when he used them. The
various chemicals of Smith have been used by numerous
practitioners. Purgatives have been used by
several persons in this disease. Cathartics have been

used by some practitioners as they say with entire success, but the effect they attributed to their employment was due to the other medicine they ordered at the same time. The acetate of lead is the most celebrated of this class of medicines. Enemata have been used when the stomach was in so irritable a condition as not to retain any thing in it. Hot water when injected, per anum, has been recommended in the state of collapse; enemata of tobacco have been highly spoken of by some. In fact the whole materia medica has been recommended. If the patient escapes the state of collapse he has a consecutive fever which must be treated according to the state of the system.

To

Dorothy Thomas Gilmer

of Virginia,

this inaugural dissertation

is dedicated,

by her friend,

C. Mann

March 1835

To

Peachy Harmer Gilmer

of Virginia,

This Inaugural Dissertation

is dedicated,

by his friend,

C. Minor

March. 1835

The practice of Medicine has been involved in numerous difficulties, and not a little obscurity from its earliest existence. Superstition, Credulity, Scepticism, and Ignorance, the parent & the offspring of them all, have exerted their unperceptive influence upon the Science, & the Art which is founded upon it, until the veil which has hung around them presents an obstacle almost impervious to the light of philosophy. Instead of our being able to reduce the relations of Cause & Effect to fixed & uniform laws in medicine as in other sciences, deducing thence a cause when we know the Effect, or an Effect from a Cause, it is still necessary to resort to Empyricism, enveloping all things in mystery rather than disclose the blindness in which we grope. We are obliged yet to prefer darkness to light!

Yet it is not alone in medical inquiry that we are thus unenlightened & restricted. The Science of the Mind is as obscure as that of Medicine. Indeed there is a strong similarity between them. They ~~are~~ relate, the one to the subtle principle which constitutes our Vitality — the

other to that which makes us immortal. The relations of the External world to Each, are discoverable — tho' the task is a difficult one. We may with a little satisfaction trace that connexion to the corporeal senses, but when we come to enquire into its nature or cause, we can avail ourselves of conjecture alone and that conjecture is as dark as it is unworthy of true philosophical research.

I cannot leave reflecting so little flattering to the progress of medicine, and its collateral branches without rendering some reparation by referring briefly to what has been done. That much yet remains undone is not to be questioned, nor is it an imputation applicable to this alone but to every science. Each one has passed thro' its dispute. The charge of empyricism to which I have alluded and which, I will admit, must be to some extent entirely just, is only like the charge of occasional fallacy to which every system is liable. The difficulty of inferring effects from the exertion of appropriate means in medical art, is great because we are then called upon to decide on the relations of inanimate matter to that vitality whose

ways, like those of the Artisan of all things, we just finding out. We cannot in every case discern the connexion, and when we do, there is no certainty of the observed sequences of things remaining fixed and uniform — Here is the source of that vacillation to which our Science has been subjected, and in the absence of logical or scientific reasoning — instead of legitimate deductions from established premises, we have to cut short the process; — dispensing with the preliminary instruments of philosophical investigation, analogy & observation, to pass at once to the experiment; — the experiment again being involved often in as much obscurity as was the principle which it was intended to illustrate.

In short, I allude to the marked distinction which must exists between what are denominated the exact & those which are called the abstract or less certain sciences. Among the former ranks ~~the physical sciences~~ that department of knowing which relates to the phenomena of inanimate matter — physical science. Under the latter head are classed political Economy, the Science of the mind & of the Civil Law.

From the nature of the objects which thus become matter of medical inquiry, arises the uncertainty of the art — an uncertainty great indeed, but still so much less than existed in years past that we dare not set a limit to the advancement it shall yet make.

Among the perversions of practice to which a want of enlightened philosophical research has led, that of bloodletting is as remarkable as any. The errors which have crept in with regard to this feature of cure are not less dangerous than they are unfounded in truth. It is thought that many a premature grave is reached by the injudicious administration of this remedy. Nor is it improbable. The indications of venesection are various & of great number, and are generally derived from the pulse, yet not without important modifications according to preexisting or subsequent circumstances. Doctor Rush has said that a full & frequent or firm pulse required bleeding; in like manner a tense pulse, a jerking; a quick & tense; a slow & tense; an unusually frequent pulse; a soft pulse without much frequency or fulness; an intermitting pulse, a depressed pulse, an imperceptible pulse, ~~scarcely~~ indicating increased action in the brain.

It will appear at once that this list embraces varieties of pulse which are undoubtedly directly opposed to each other. There is first the full, frequent & vigorous pulse: then the small, slow, weak are indications, of apparently the same amount, of precisely the same treatment. The quick & large, & the slow & tense equally require bleeding, but in this case it is determined by the tenseness: that containing, bleeding is demanded, it seems, whether slowness or quickness accompany it. Also the slow & tense, and the slow & soft appear to be indications of bleeding, the tenseness here being no longer the criterion, but the slowness seems to decide. Lastly, tho' a full, frequent vigorous pulse do demand a depletion of blood, it is no less required by an intermitting pulse, a depressed pulse, nay an imperceptible pulse.

Now, to a mind not extremely refined, or extremely credulous, these things must seem at first view quite odd. It is indeed little less than telling us that we must bleed if there is a quick or slow, frequent or the opposite, full or wiry & small, vigorous or weak, or if there is any pulse at all, and if there is no pulse, then bleed at all events.

with such instructions as these, how shall a student decide, or can he go amiss? He can decide, and if he do not distinguish most nicely, he may err greatly to the prejudice of his patient & his art. Yet how difficult must be the decision between so many sources of error.

It is said that <u>Congestion</u> of blood usually requires that the organ in which it has taken place should be relieved by bleeding, and this congestion may be indicated by a certain character of pulse. But the congestion ~~may proceed~~, it is said again, may depend upon several causes, and those directly opposed to each other. Shall we still bleed? It is manifest that we cannot. If a state of venous debility exist, that may give rise to congestion in any organ, while the arteries may be in health. If the arteries be over excited, the veins remaining in healthy discharge of their functions, congestion may again ensue. How shall we decide between the two conditions? By no means, probably, except a reference to the circumstances of the case, and then it is not a little obscure. — The utility of the remedy must be guided, finally, by rigid observance of the circumstan-

-ces, and by a careful restriction of the deple-
-ting process to something short of approaching syn-
-cope. It is a powerful baneful remedy, yet
for the reasons which have been barely alluded to,
liable to great perversion.

An attention to the part which the nervous
system takes in the animal economy, both in
health & disease, has been much neglected. May
it not be conjectured that, as ~~[illegible]~~ mortif-
-ic & remedial agencies are generally exerted directly
upon the nerves, an attention to their modes
of action in every case would throw much light
upon the practice. What a monstrous error some
may have fallen into, for instance, by not remem-
-bering the effect of nervous influence upon the deter-
-mination of blood to particular organs — when tho'
the system is absolutely exhausted there may be
in ~~the~~ some organ those signs of high excitement
which usually demand the promptest depleting
measures. And again there is much to be gain-
-ed by remembering how much the nerves & the
imagination have to do with causes as well as diseas-
I need not mention a more remarkable instance than
those related of persons who have fancied themselves

-icant art which can divert the approaches of the "monster", and seducing him into a game of "hide & seek", can hold him off until Dame Nature spits in her hands & renews hold upon her sinking sister.

An
Inaugural Dissertation
on
Rubeola
Submitted to the examination
of
The Provost, trustees and Medical faculty
of the University of Maryland
for the degree of M. D.
by
Charles H. Steele.
Annapolis
Maryland
In the year of our Lord 1895.

To

Dr John. Ridgely & Dr John Ridout
of Annapolis this Thesis is respectfully
dedicated by their pupil

The Author.

adopt prompt measures to bring about reaction, by breaking up the internal congestions. Unless we can succeed in doing this, the eruption cannot come out, and our patient will die in a state of stupor. The remedies we must place our reliance on, are stimulating friections applied to the external surface; such as tincture of capsicum, cloves steeped in hot brandy, salt made as hot as the patient can bear it, or hot bricks or bottles of hot water to the feet; and we must also use sinapisms, and blisters applied to different parts of the body. To aid the external applications, we should have recourse to some of the stimulating diaphoretics; viz serpentaria, eupatorium &c. In this form of the disease, camphor, in union with large doses of calomel, will be found of service, and the carbonate of ammonia is also a valuable remedy. Moderate bleeding has been recommended by Dr Armstrong, he tells us however to be cautious in its use. Though there are some cases, no doubt requiring bleeding; and in which if judiciously employed, it will be serviceable; yet in the majority of cases, as it is a doubtful remedy, and we have others, which will perhaps answer our purposes as well, I think it will be found the best course, generally to

dispense with it. Where retrocession of the eruption takes place, the treatment is nearly the same, as that just described, except when it seizes upon some internal organ, and produces inflammation of that organ: then our course of treatment is entirely different; we must employ the antiphlogistic course of treatment already given. When the eruption recedes from violent sweats, or diarrhoea, opium and camphor combined will be useful in checking it.

I shall conclude what I have to say on this subject, with a few remarks in relation to the treatment, during convalescence. The diet of the patient should be mild and unirritating, and all exciting drinks be avoided. The patient should not be permitted to leave his room too soon, and after leaving it, should be careful not to expose himself to the influence of cold and damp weather. If the cough continues to be troublesome, the vinegar of squills with vin. antim. or tinc. opii, camp. added to it, will be found a useful remedy.

Rubeola.

Rubeola is an eruptive disease, occurring generally as an epidemic, in the winter and spring, and gradually disappearing as the summer comes on. Like small-pox, it seldom attacks the same individual twice; and it is thought by some, that a second attack of this disease occurs less frequently, than of small-pox. The contagious character of rubeola, was long a disputed point; but experiments made by Home and many other persons, by inoculation, prove I think beyond a doubt, that it is contagious. A great many facts might be adduced, in support of this opinion, did not the general admission of its correctness, render such a course unnecessary at the present day.

Rubeola like other epidemics, is subject to various modifications. The weather has a decided influence over it, rendering it much milder in the warm, than in the cold seasons of the year. The constitution of the individual affected, has great influence in modifying its character. Its tendency to local inflammations is always very great, and particularly during the periods of disquamation and convalescence. It also leaves the system peculiarly susceptible to the influence of cold, and it is, from this circumstance, that we have

so many diseases occurring during convalescence; diseases, which generally speaking are more to be dreaded than Rubeola itself—

In February last the measles appeared in this City (Annapolis) and prevailed as an Epidemic for several months— In some respects it differed materially from the same disease as it had formerly appeared. The symptoms were generally more severe, and a large proportion of the cases terminated fatally, than on any former occasion of its prevalence, within the recollection of the oldest physicians— The tendency to severe thoracic inflammation prevailed in a large number of the cases, and in several instances such cases terminated in Phthisis Pulmonalis. In children an unusual number of cases occurred, attended with convulsions, coma &c. In three cases which terminated fatally, laryngitis supervened, on the retrocession of the eruption. The first case, which occurred in town, was one of this description— The patient, who was a healthy female, aged 17, had been to Baltimore, where she contracted the disease, which appeared a few days after her return to Annapolis— The disease was ushered in with symptoms of uncommon severity

afterwards on the body and extremities. These red spots though at first distinct, soon increase in number and size, and run into each other, forming patches of various sizes and figures. The eruption is more prominent on the face, than on the trunk and extremities; though in all places where there is redness, the inequality of the cuticle may be perceived. The eruption on the face increases for about two days, and on the third day it begins to grow dry, and assumes a brownish colour. When the redness has almost left the face, it is at its height on the extremities, where a day or two later, it runs the same course. About the ninth day, the eruption assumes a pale yellowish appearance, and desquamation commences on the face, which is completed over the whole body by the tenth or eleventh day. The fever, cough, and difficulty of breathing, instead of being removed by the eruption coming out, are rather increased; but the vomiting if there has been any present, generally ceases. When however, the eruption begins to fade, an evident amendment in all the symptoms usually takes place; though occasionally the

fever, cough, and difficulty of breathing continue. Frequently about this time (subsidence of the eruption) diarrhœa occurs, which if not too violent, will be of service, and aught not to be checked.

Diagnosis. Scarlatina is the disease, which is most liable to be confounded with measles. In all ages even to the present day, this has been the case. Though the distinguishing between the two diseases is attended with some difficulty, to an inexperienced, and in some cases, even to an experienced physician, yet there are some of the symptoms, which if properly attended to, will enable us to form a pretty accurate diagnosis. First we have the catarrhal symptoms to direct us, viz, the dry and hard cough, inflamed and watery eyes, sneezing &c, which are so generally present in measles, and are either altogether absent, or extremely slight in scarlatina. Secondly the eruption of the two diseases are different; in measles the small red spots, resembling flea-bites, are of a darker red, and are spread out over the body, in irregular patches, with the intermediate skin retaining its natural colour, while on the contrary, in scarlatina, the eruption is more

At the usual period the eruption made its appearance, and after continuing about 36 hours, suddenly receded. About this time, or soon after, the symptoms of laryngitis appeared, which disease ran its course, and terminated the life of the patient in a few days. In second case very similar to the above, occurred in a female aged about 35, of dissolute habits, and in a state of pregnancy. In this case symptoms of laryngitis appeared earlier, than in the one just mentioned being nearly simultaneous with the eruption, which was slight. It terminated fatally in a much shorter period than the first case. The third case of this description, which had a fatal issue, was likewise a young, healthy female. She had passed through the disease, to the period of desquamation, without medical assistance; nor were the services of a physician required, until laryngitis was fully formed. This case yielded in a few days to active treatment, but bronchitis supervening she died about the 10th day.

Minutes of these cases not having been preserved, it is impracticable to give a detailed account of the treatment. Blood letting, carried as far as was considered safe, emetics, calomel, blisters, &c were

vigorously employed, but except in the last case, without producing any decided impression on the disease.

Symptoms— Rubeola like other febrile diseases, is ushered in by alternate fits of heat and cold, sickness and loss of appetite— On the second day usually, but sometimes not until the third, these symptoms terminate in a well-formed fever— the tongue is generally white and moist— there is a cough, and sneezing with a watery discharge from the nose— the eyes are also inflamed and watery, (the tears falling over the cheeks) and very sensible to light, and the patient complains of head-ache. On the third day, and sometimes earlier, nausea and vomiting occur, and slight delerium often comes on in the evening of this day, when the fever is considerable. Frequently and particularly in children, a few hours previous to the eruption more or less coma comes on, when the disease is violent. When the disease is of its ordinary character, the pulse is generally quick, hard and frequent, and the skin dry and hot. About the fourth day, small red spots resembling flea-bites appear, first on the face, next upon the neck and breast, and

diffused, and uniform, consisting of an infinite number of very minute red points, united together, resembling in colour the redness of a boiled lobster's shell - The two diseases likewise differ from eachother, as regards the time of the appearance of the eruption in each, after the fever commences - In measles it comes out on the third or fourth day from the beginning of the fever, while in scarlatina, it makes its appearance usually on the second, and frequently on the first -

Prognosis - is generally favorable, when the disease is unattended with any internal inflammation or congestions, and runs its regular course, without the eruption receding - It is unfavorable, in proportion as internal congestions and inflammation are present, either of the lungs, brain, stomach, or tracheadet - The retrocession of the eruption is also unfavorable, whether it be from cold, or too violent cathartics, or emetics, or any other cause capable of producing it - In persons disposed to phthisis, it is always to be feared -

Treatment - In the mild and regular form of measles unattended with local inflammation or

congestion, our treatment should be mild. All that is required in these cases, is to advise the patient to keep his bed, and drink some tepid diluent, such as barley water sweet, and keep his bowels open, by some of the mild laxatives or purgatives such as magnesia, sulp. mag., or oil - and sometimes a small dose of calomel will be proper, particularly where there is vomiting - If the vomiting should be troublesome, the saline effervescing draught will be found useful in allaying it - But when the fever is of a higher grade, it will be necessary to employ some remedies better calculated for its reduction, and those best adapted to this purpose, are the refrigerant diaphoretics - The common nitrous powders, the effervescing draught, and for children, antimonial wine with sweet spt nitric, will answer very well - Calomel will generally be required in this grade of the disease, and the best plan, is to give three or four grs in union with the nitrous powders - There are many diaphoretic mixtures also which will be found useful, the following are recommended by Dr Eberly, and will be found very

1835

Inaugural Thesis
upon the
Anatomy of the Eye
Submitted

To the Provost Trustees & Professors
of the
University of Maryland
for the
Degree of Doctor of Medicine
by
Washington Lyon

The eyes constitute the organs of vision: they are situated in the cavities of the orbits, and surrounded by several parts to protect them injury, and assist in the performance of their various functions.

The Globe of the eye, termed simply the eye, is formed by several superimposed membranes and the humours contained by them —

The coats which form the globe are, the Sclerotic, the cornea, choroid & Retina, the additional coats, the Albuginea and Conjunctiva. — The humours are the aqueous, vitreous, and Chrystalline —

The Sclerotic coat, is the largest and strongest coat of the eye, covering the whole ball, excepting the parts occupied by the entrance of the optic nerve behind, and by the cornea before. It is so firmly fixed to the edge of the cornea, that it has been described by some Authors as a continuation of the same substance; but it differs from the cornea, being of a white colour, and formed of fibres closely connected and interwoven with each other, and not divisible into layers —

The cornea which forms

an tinous pellucid covering of the eye, is next coat. It is composed of several strata laminæ closely united by cellular substance, more compact than the rest of the ball, and joined to the sclerotic, like the segment of small sphere to that of a large one. This convexity varies in different individuals, so as to form a long or short-sighted eye according as the cornea is more or less prominent. In a recent subject, it is hard dense and transparent, when macerated in water it swells, becomes soft & opaque, and may be separated into different lamellæ, the anterior of which is the continuation of the tunica conjunctiva. If it be macerated till it begins to become putrid, it separates from the sclerotic being joined only by cellular substance.—

The next coat of the globe of the eye is the Choroid, which is of a blackish colour, and adheres by means of a great number of small vessels to the sclerotic, from the insertion of the optic nerve all the way to the cornea, where it leaves the circumference of the globe, & turns inward, to form a number of little processes, termed ciliary, situated at the edge of the crystalline lens. At a very small distance from the cornea, the choroid is closely united to the sclerotic

means of a whitish ring called ciliary ligament or circle. The choroid adheres so closely to the sclerotic, that if we blow thro' a small hole made therein without touching the choroid, the air will penetrate every where between the two coats, but cannot destroy this adhesion or force it to the cornea.

Many veins are observed on the choroid coat, running in various directions, making an frequent anastomoses, termed vasa vortica sa. The ciliary nerves may be seen passing between the choroid & sclerotic coats. They are sent off from the lenticular ganglion and seem to be distributed upon the iris, ciliary ligament, and processes. Upon the inner side of the choroid coat there is a mucus of a blackish brown, termed pigmentum nigrum, supposed to be secreted by the vessels of this coat, and is blackest & thickest at the fore part of the eye, where it adheres so firmly as to be removed with difficulty: but behind it is thinner, more fluid, & more easily removed; becoming gradually less evident towards the optic nerve, around which it almost disappears.

The choroid coat with its dark paint serves to intercept the rays of light which pass thro' the retina, thereby allowing a distinct image to be formed upon the ~~retina~~ retina upon the bottom

the eye, and preventing the rays from being
reflected, so as to form a second image. In
those animals in which this coat or its paint
of a bright blue colour, it acts as a mirror to
reflect light, and make the impression stronger—
The Iris so named from its being in some
nations of different colours, is the only coat
of the eye which proper motion. Opinions
vary in regard to the manner in which the
iris & Choroid are united: some affirm that
the iris is a prolongation of the choroid: others
think it should be regarded as a distinct
membrane. Meckel adopts the latter opinion
for the following reasons
1st The quality the tissue of the iris
2d Its numerous nerves with the Choroid
seems. 3d The several vessels which carry blood
to which differ in their origin and arrangement
from those of the choroid membrane.
4th The difference between the two membranes
respect to their vital phenomena, since the iris
is highly contractile, while the Choroid proper
is contractility. And adds further that the iris
easily detached: after a maceration, which
does not continued long enough to destroy the
continuity of the tissue either of this or the Choroid
membrane". The iris begins a small way behind
the junction of the cornea and sclerotic, and
running across it forms a septum, convex anterior

et perforated in the middle by a hole,
ed the pupil or sight of the eye. Upon the
ior part of the ~~eye~~ iris there is a dark-colour
ment, which has been considered as a pos
r layer of the iris, called uvea. Between the
o laminæ of the iris we see two planes of fibres
ich have been supposed to be muscular.
he fibres of one plane is orbicular, and lies
ound the circumference of the pupil: those
the other radiated, one extremity of which is
xed to the orbicular plane, the other to the
dge of the iris. The iris has motions of such a
ature, that the pupil is contracted at the
proach of a strong light, and is dilated upon
ing exposed to a weak one. The different colours
hich appear in the iris have been ascribed
an intermixture of vessels & nerves. The differ
t motions of the iris are supposed to be excited
the sensibility of the retina, and by the quan
ty of light which falls upon that nerve. The
s serves to regulate the quantity of light
nt to the bottom of the eye. The third distinct
embrane of the eye is the Retina. It is the expansion
the optic nerve, and of a very different
ture from that of the two other coats. It is
hite, soft, tender, and in a manner medullary
like a kind of paste spread upon a fine
licular web, and lining the bottom of the
ye. It is asserted by some that it terminates

the ciliary circle. — Humours of the eye.
The space between the cornea & iris contains the
anterior part of the aqueous humour, & communicates
the pupil with a very narrow space behind
the iris, or between that & the crystalline. These two
spaces have been termed the two chambers of
the aqueous humour the anterior & posterior: the
anterior situated between the cornea & iris: the
posterior between the iris & crystalline lens. This
humour serves to keep the cornea distended and by
its form and transparency collects & transmits
the rays of light to the inner parts of the eye. It likewise
moves as the iris & lens & admits of the motions of the
cornea. — The crystalline is situated behind the
aqueous, opposite to the pupil, and the whole of its
posterior part is received into a depression on the front
part of the vitreous humour. The lens has two convex
surfaces, the anterior being less convex than the posterior
& is composed of concentric laminæ laid over
each other like the coats of an onion". The substance
of the lens is soft & tender on the outside, but
becomes firmer & tougher towards the centre where it
forms a nucleus. The lens is surrounded by
a capsule, called the tunica crystallina usually
described as a distinct membrane from the vitreous
tunic. yet so firmly connected to it by cellular
substance, that it is difficult to separate them
without lacerating both the vitreous coat & its
humour. — The vitreous is a clear liquid gelatinous

ina contained in a fine transparent capsule called tunica vitrea. it is situated in the back part of the cavity of the eye. from the insertion of the optic nerve to the surface of the crystalline lens. is round at the back part & sides, where it is covered by the retina, but is concave before where it forms a bed for the crystalline lens. It is the largest of the three humours. The liquor with which the vitreous humour is filled. is similar in appearance to the aqueous. The tunica vitrea or hyaloidea, emits internally numerous prolongations in the spaces of which the liquid is contained as in so many cellules: these cells communicate freely with each other, as appears by the liquor oozing out by the smallest puncture made in the capsule. Between the edge of the crystalline capsule & the anterior part of the hyaloid membrane is a thin layer termed Zonula Ciliaris, it presents a striated appearance and circular form: when a puncture is made in this, and air blown in, it forms a passage which runs round the lens. It is termed the canal of Petit. The vitreous humour serves to give shape to the eye, to keep the coats properly expanded, to preserve the due distance of the lens, and direct the rays of light to the retina

1835

An

Inaugural, Dissertation:

On Indigestion,

Submitted to the consideration of the

Trustees, and Faculty of the

University of Maryland,

For the degree of Doctor of Medicine

by Alex. Hamilton, Baer

of Rockingham County, Virginia,

To

Samuel Baker M.D.

Late Professor of Materia Medica
in the University of Maryland

This brief dissertation, is inscribed, as a token of the sincerest esteem, for his numerous virtues, and high professional eminence; of the most affectionate regard, for the many friendships, personally, conferred upon, his greatly obliged friend and pupil.

The Author.

On, Indigestion:

"Physiological, view. In order to obtain a correct view, of the pathology, of indigestion, and of the various, and true, indications for its remedial management, it is essentially requisite, that the practitioner, be acquainted, with the suffering organ, in a physiological point of view.

It is only possible, however in the present treatise, to advert, to the more prominent, and primary, circumstances, that may be considered, in relation to this subject; the united experience, of those who have given considerable attention, to it, has satisfactorily demonstrated, that the two following conditions, of the digestive apparatus, are highly necessary, to the healthy function, and due performance of digestion.

These vital acts, are first a proper tone, and healthy peristaltic action of the muscular coat of the stomach, in order that aliments, when taken, into it, may be uniformly embraced by its muscular contractions, and successively, undergo the mutation; whenever the food is in contact, with the organ, and has undergone the necessary changes, it is driven forward by the peristaltic action towards, the pylorus, and from thence into the duodenum

The second is, that a healthy, and regular secretion of a sufficient quantity, be illminated in the sto=mach; this is no less important, than the first in digesting proper nutriment, for the healthy main=tainance, of the individual, and without a healthy co=operation of them both, digestion is but tardily per=formed; that the latter, viz. the gastric juice is the only solvent, concerned, as far as chymification, is I think, established, beyond all dispute. The united ex=perience, of Stevens, Gosse, Leidman, and others, pl=aces, this physiological fact, upon the basis of incontrovertible demonstration. That bile, has any vital or material agency, in the process, of chymi=fication, does not appear, from some of the late experiments, performed, by the most distinguished physiologist, of the present day; it is contended by them, that the principle agency, of the bile is to render the oily substance, of the chyme soluble, in the chyle, and that it is the alkaline proper=ty, of that secretion, which gives to the chyle its mi=lky color. For when the ductus communis cholidochus, is tied, chymification goes on as rapidly, and as uniform as before; with this only difference, that there occurs a transparent, and yellowish hue of the

chyle in the lacteal and thoracic duct; this phenomenon is probably owing to the transudation, of bile into the blood, when taken up by the lacteals and deposited, into the great reservoir of the absorbent system. As the nature of the present, treatise will not admit, of further, physiological investigation, we will more immediately, enter upon the subject, under consideration.

Of the different kinds of Indigestion.

This disease, like most other complaints differs in its seat and character, in different individuals. The pathological observations, made by the most laborious, investigations, of the present day concur in enumerating, four kinds of disorders of the digestive organs; each having its seat principally if not exclusively, in one of the particular parts, of the digestive tube, hereafter to be mentioned. Though one species, or variety, can seldom exists for any length of time, independantly, without the neighbouring organs, becoming involved, either by sympathy, of contiguity, or continuity, and consequently changing the nature, of the primary a

affection into one, or the other varieties; among the affections, which are common to the intestinal canal are first those, whose immediate seat is in the stomach; and secondly, those, in which, the small intestines are chiefly, or almost entirely concerned, A third species is owing to a morbid, or faulty secretion in the biliary apparatus, whilst the fourth variety is especially located in the large intestines.

All these cases, of disordered functions, of the digestive tube, may with much propriety be classed under the head of indigestion, or dyspepsia, because, their immediate tendency, is to prevent, the regular, and perfect digestion, and assimilation of the food. From the many varieties which are incident to this affection, it must be manifest to every one, who is at all acquainted, with savages, that it is of the utmost importance, to the medical practitioner, as well as to the patient, that the kind, and seat of the disease, presented, be correctly distinguished, for upon this base, or foundation alone, can the former, do justice, to the suffering individual; or can the latter reasonably hope to derive any efficient; advantage, from his medic

=al attendance. I shall offer these few remarks endeavour, briefly, to give the most prominent and pathognomonic, symptoms, of the different varities, which we have mentioned incident, to this affection. In the first modification, when the stomach is the principle organ affected, the symptoms, are a furred tongue, clammy mouth, want of appetite, heart burn; oppression, at the pit of the stomach, after meals, or a sense of sinking after a short abstinence; to these may be added nausea, rejection of food, a short time, after it has been taken; the mouth is generally parched, and dry, in the morning, prevailing thirst through the day, and the breath, is more or less fetid; the patients bowels are frequently costive, but sometimes attended with diarrhea, but in the generality of cases, the bowels are regular and the alvine discharges little changed, from a healthy or natural, condition. The drinking of much liquid is particularly distressing, and often followed by tenderness in the region of the stomach, and not unfrequently in the left hypochondrium; sometimes a puffy and elastic swelling, may be felt

upon the left side, and in probably, and in seven cases; soreness may exist in that region, and a peculiar burning sensation, more or less constant, extending to the right side. The patient in this modification is often much troubled, with acidity in the stomach; and not unusually, soon after food is taken; a simple returning, takes place, more especially after the dinner meal; the urine generally is limbid, and on standing, deposites a yellowish red sediment, but hardly even deficient in quantity, the complexion not unfrequently turns pale; but very rarely, that it ever assume a sallow appearance.

Second Variety.

The second modification, or variety of this disease, may be known, by a modification, of the symptoms in the first. When a great extent, of the small intestines, are the organs chiefly affected; the tongue is generally, coated, with a white film, but, not so much, as in the first variety, the thirst is also, less urgent, than in the first modification, the mouth not so parched, or dry, the appetite, not much impaired, nor the breath

much tainted; no sense of sinking, at the pit of the stomach, except in cases, where an immod=erate gratification, of the palate has been indu=lged in; the bowels, are variously and much dis=ordered, in this variety, though, the stomach, hard=ly ever, participates; the intestines are often much confined, or too much relaxed; the alvine evacuation=s, are often unnatural, and highly offensive, be=ing either of a light brown, green, dark or blac=k colored, and sometimes the color, of pitch, white not unfrequently, slime diarrhœa, is a troublesome symptom, and frequently exists, from the com=mencement; thirst however is not very urgent, and consequently liquids, are not much indulged in, and when the individual, does happen to take too largely, of fluid, potations, they do not cause that oppression, and pain, which is felt, when the stomach, is the principle organ affected. In off=sections of the stomach, there is a great collection of gas; which annoys the patient very much. In this variety, the gas, is principally confined, to the bowels, giving rise to much pain and flatulency, pains are often felt, in the region, of the umbilic=

When the stomach is the organ, mostly affected, we, have heat, and viscid secretions, in the mouth, with some eructations, more especially a short time after taking oily aliments. When there is great irritation, in the small intestines, the sensation of heat is most sensible, and troublesome, at the other extremity, of the digestive tube; the patient is frequently affected, with hemorhoidal tumors, which occasions considerable tenesmus, when at stool. In general the urine is highly coloured, and deposites, a red sediment; the external appearance, of the patient, is pale, and sallow, and sometimes yellow, which last appearance is very visible in the conjunctivae.

Third variety

In this the third modification; the most prominent symptoms, are in general, pain or uneasiness in the right hypochandrium, constipation of the bowels, unhealthy alvine evacuations, in which, the white, and dark dejections, predominate The tongue, perhaps is always coated, with a thick yellowish fur, and the urine turbid, sometimes highly coloured; the appetite is more impaired, than in the second variety, but not so much as in the

first modification; the pulse is seldom unnatural and varies, but in a small degree, from the healthy standard, it may be questioned on pathological demonstrations, whether, the sallowness, or jaundiced hue, of the countenance, and eyes, are more frequent, in this variety, than in the second modification, it is however so, in some cases, and of a more steady character, in cases of long standing, and where, there has been much irritation, a palpable enlargement, and indentation, can easily be felt in the right side, close to the margin of the ribs.

Fourth Variety.

In the fourth variety, of this affection, where the large intestines, are the organs affected, it often remains, a long time, undiscovered; this is probably owing, to the frequency, with which, the generality, of dispeptics; are labouring under, some irritation, about the rectum, or anus, such as hemorhoidal, soreseness, frequent discharges, of blood, pain and sensation, of heat, when at stool; When persons complain, of these symptoms, of the existence of disorder, and irritation, medical men, are too

apt, to think they are only symptoms, of the existence of diseases in the superior portion of the alimentary canal; which do sometimes incidentially happen to all such patients, and which can only be removed, by remedial agents, calculated to remove the primary affection; As a general view, this may perhaps be a correct one, but cases undoubtedly occur, in which the original seat of all the patients suffering, may be found in the colon and rectum Dr Graham observes in his treatise on indigestion, that in great irritation, of the large intestines, patients have often an unimpaired appetite, and relish for food, with a clean tongue, and he further adds that they will, also digest there food well, provided they are careful, in the two points, quantity, and quality This state of the stomach, and tongue, will often be present, when they are harassed, by general nervous depression, and local uneasiness, about the rectum. The pulse in the various, stages, of dyspepsia, varies but little, it is generally weak, small, slower than natural, but regular; It however may become, intermittent, and quicker, than natural, if there, exists an inflamatory, action, or tendency, it is

more or less hard. The symptoms of dyspepsia may be very severe indeed, when there is, no hepatic derangement; and yet emaciation, will be but trifling, but, if the function of the liver, be disturbed, the flesh disappears, with great rapidity.

Causes of Indigestion.

Among the various, and multifarious, causes of indigestion, few authors agree, as to the number of circumstances, that may give rise, to the morbid phenomena, in the digestive apparatus, every person is now struck as well, as the medical practitioner, with the frequency of dyspepsia, among the inhabitants, of our highly, civilized country, it has become an interesting enquiry, with medical philosophers, what is the cause, of this morbid change. A correct answer is hardly to be expected, when we reflect, how divided, pathologist are in their deductions, on this subject. Some have attributed, it to physical and others to moral, whilst others combine the two as a connecting link, in the chain of morbid phenomena. It is however very evident, that it is for the most part dependent, upon changes, which have of later years, gradually taken place, in the gen

-cial pursuits, of mankind, and in their modes, in this country, when we observe minutely, these changes which deviate so much, from a healthy and natural condition, of mankind, and as these changes, are undisputed by all, and are I think, equal to the production, of the effect, the real sources of this disease, appears to be sufficiently, manifest, some have ascribed, as the grand cause, inordinate repletion, and its necessary concomitants, morbid distention &c, but many circumstances, corroborate in proving the fallacy of this general opinion. Natural, as well as medical history informs us, that our forefathers ate and drank, as much as we do, in the present day, yet they were comparatively exempt from any such malady, we are informed by natural history, that in the reign of Henry the eighth, for example, both wine and ale were drank with impunity, at breakfast, the quantity, being a pint to each individual, and also that maids of honour, in the court of Queen Elizabeth, ate for breakfast, beef ~~stake~~, and drank without respect, to quantity, ale afterwards; whilst many in the present day, can hardly even

take a small quantity of any liquor, without causing the most disheartening symptoms, again it is now well ascertained by experience, for it alone in this affection, should be our guide, that in the majority of cases, if a dyspeptic, will give ease to his mind, and free exercise, in the open air, to his body, he will digest his food with ease and comfort to himself, and not be troubled, with those fits, which are common to the indolent & sedentary. In enumerating, the causes, of indigestion, they may with much propriety be divided into two classes viz. Physical and Moral, the first class although numerous, may not be regarded, as more hurtful, than the latter.

Physical Causes.

As the stomach may be considered, not even the brain excepted, as the great centre, of sympathies; and by every undue impression on the skin, whether cold or hot, of humidity or drought, impresses more or less, the healthy functions, of that organ. In a climate like ours, this fact must be observed by every one, who has at all, rested his observations on experience, that when, atmospheric changes are so

perpetually occurring, not only as to temperature, but al so, as to humidity, density, rarity &c we need not fancy in the most, why affections, of the alimentary canal are so numerous & prevalent, amongst us. If we but count, the experience, of those who have lived in the pure and open air, where atmospheric changes have but little effect, we can readily and easily, draw, a line, and marked distinction from those, who reside in large towns & cities, whose constitution is effeminated, from continually inhaling, from every thing, in the animal, vegetable and mineral kingdom; that host of miasms, emanations, and contaminated effluvia, swallowed & kept in contact with the skin. These effects, are every where visible, in the sallow complexions puny, and capricious, appetites, and imperfect digestion, of the inhabitants; This state of inapti tude, for aliments, resulting generally, from seden tary, occupations. Impure air, late hours, and men tal perturbations, leads greatly to an aggravation of the evil, by the recourse which is had to high seasoned food, and stimulating, drinks, more or less by all classes of society, the nerves of the bowels

are irritated, by what is undigested: To these different causes, may be added, the vitiated secretions themselves, not only of the stomach; but of the liver pancreas, and all the innumerable glands that area, the mucous lining, of the digestive tube The physical causes, then of indigestion, may be considered morbid sensibility, of the nerves, of the digestive apparatus, and a deficiency of gastric juice, or redundancy of acid, atmospheric impressions, on the exterior surface, cutaneous disorders, and the sudden retropulsion, disordered functions, and diseased tissues, in other parts of the body, as the liver, spleen, pancreas &c act through the medium of sympathy, on the organs of digestion — aliments taken in too large quantity, alcoholic liquors, blows on the head, back, an electricity; long continued use of tea & coffee, emetics, onanism, acrid substances as drastic cathartics, taken into the stomach, or generated, in the alimentary canal; under these heads, all or almost all the physical causes may be classed, they are numerous, and act through the channel of sympathy and direct application, to the different organs and tissues.

Moral Causes.

It is thought but one medium, that these causes can have, from the organ of thought, to the digestive apparatus, but the number of airy spirits, and the velocity, with which, they are conveyed along the silvery pneumo gastric conductors, baffle all intellectual calculations. It is now plain to every observer, that in the present condition of things, men, minds, are too much engaged, in the pursuits of this world whilst, they suffer themselves, to live an inactive life; here I think lies, the great root of all the evil, complained of by the invalid. Mental anxiety, not only arrests, and disturbs, the progress of digestion; but by interrupting, and weakening, the nervous influence, on which it depends, and thereby leaving the food, open to the chemical laws, which the individual is subject to feel; but in a remarkable manner vitiates, or impairs the billiary secretions, and consequently propagating, a new and powerful source of irritation, to the delicate nerve of the

duodenum & intestines. The fact is, from the whole line, of the digestive tube, from the cardiac orifice, to the valve of the colon, is kept up in a state of irritation, from the time the food is taken in, till its remains, pass into the great intestines. It is almost incredulous to relate, but Dr Johnson relates a case, in which a single look, and a few words, from a tyrant monarch gave the ambitious wolsey, a fit of indigestion which terminated the cardinals life. The function of digestion, as indeed, every function, is so completely under the nervous influence, that there can not, be any doubt: of the channel through which the mischief is produced. In this country where mens relations, with the world are various and multiplied, in consequence of the intensity of interest, attached, to political religious, commercial &c and disappointments of every description, often sink the mind in despondency, and from such perpetual, vacillations, debilitate greatly, the digestive organs.

Autopsical appearances.

The morbid appearances, exhibited on autopsy, are

various, owing to the variety, intensity, and duration of the disease, and to its numerous complications, the mucous membrane of the stomach, partakes of, in a remarkable degree, this difference in appe=arance, varying, from a lively rose color, to a deep brown shade, and sometimes even black in spots; another appearance exhibited, frequently, is that of a dirty yellow, resembling slightly the skin in jaundice, & having lost its naturally pearl color" The arrangement, of the coloration, is diversified, being occasionally arborescent, or striated, or in irregular patches or spots, of greater or less extent, and diminishing, in intensity, at the edges until finally lost, in the continuous mem=brane, they are said, sometimes to be in the form of a zone. When the disease has been of long duration, the membrane in certain parts, becomes greatly thickened and indurated, this is particu=larly observable about the bas fond, and towards its pyloric portion, indeed any part of the great=er curvature of the stomach, may be found in this condition. This thickening is often confined, to a single spot, of no determinate magnitude:

sometimes arranged in rugae of considerable length, which being colored, gives the stomach the striated appearance noticed above, the coloration and thickening, observed above, are also formed in other portions of the alimentary canal, differing from the above, only, in so far, as there may be a modification, of the circumstances. Perhaps there is no part of the animal system more subject, to ulceration, than the digestive, mucous tissues, and consequently we find it, in a great number of cases, of those, who have died, from disease, often having laboured under chronic, digestive derangements. The order of frequency, in which they occur in the alimentary canal is as follows, the beginning of the colon first; then the ileum, especially at its lower end, the termination of the colon, and the beginning of the rectum the stomach, the transverse colon, the jejunum, and lastly the duodenum. In the mucous membranes, devoid of epithelium, the ulcer is preceded by a small reddish tubercle, with a dark point in the center. Previously to this ulceration, the internal tunic is almost always thickened, Ramol

-itement, of this membrane, has been formed in many cases, especially when acute inflamation, has supervened, upon the chronic morbid condition. The appearances of the liver, are not uniform in old dissecting, it is often enlarged and indurated, though sometimes softened, and presenting a much lighter color, than usual, being almost yellow, the particular investigations, of the morbid appearances, of the liver, would be more proper in a dissertation, exclusively, devoted to hepatitis. We hope therefore we may, with propriety, be excused, from amplifying on this point.

Treatment.

In treating this affection, it is essentially requisite, of the practitioner, to be well acquainted, with the diagnostic symptoms, of the different varieties, of the disease, and unless he is thus informed, it is impossible, for him to apply his remedial agents with success, or mitigate the sufferings of his patient. The indications to be met primarily, in this disease are numerous, but in adverting, to them I think it necessary, in the first place, to notice the general principles, which, should precede, the

the application of remedies; and afterwards the employment of individual agents, there are certainly, two grand principles, which are of paramount importance, in the general administration remedies viz, first to restore as much as possible, healthy secretions, and secondly, to give tone and vigor to the general system; That this latter consideration, is too often overlooked, is a truth much to be lamented, and from which circumstance, many invalids, have permanently suffered; as the mischief done by actively, lowering measures, could never afterwards, be perfectly surmounted; If the physical strength of a patient be reduced below a certain point, it is often found impossible, entirely, to recover the injury thus inflicted. That depraved secretions, are sometimes dependent, upon debility, and also, That local or general weakness, may be a common cause, of this disease, is a truth perhaps few will deny. It follows then as a necessary consequence, that lowering measures, in such a state, of the system, may be improperly used; when this is the case, the most efficient alteratives, may be used, the secretions—

will still remain unimproved, and the individual, instead of getting relieved, grows worse, and from, an obvious reason, that we are by having recourse, to enervating means, giving tone and strength to the very foundation, which is the proximate cause, of such deprived secretions, from such a condition, of the digestive organs, we must infer, that the use of alteratives, would render but little or no service whatever, this however applys only to a lowering treatment, if only continued, for a few, hours, days, or even weeks. The practice pursued by some physicians, of giving a calomel and blue pill, at night, and a brisk cathartic in the morning, often defeats its own object, of producing healthy secretions, by the debilitate which it occasions. It may be laid down in indigestion, as a rule, in such conditions, of the system, that the secretions may often be restored by tonics. In the treatment of this variety, if the patients strength, be maintained, the desired object is effected, but on the other hand, what ever, decreases the general tone of the system, threatens destruction, to the very existence of the individual. The testimony of many

invalids, proves the correctness of this opinion, while the experience of observing practitioners, cooperate in its truth. It not unfrequently happens, that the physician, is entirely, defeated, by his most powerful alteratives, prescribed, to correct the unhealthy condition of the vessels just referred to, if he is negligent at the same time, of not administering, general tonic remedies. Thus in conjunction with calomel, or the blue pill, or some, other aperient, some of the preparations of tonics, might be used in conjunction, and by so doing, we shall often attain, our object, when otherwise, we would be defeated, Another grand indication, in the general management, of disorders, of the digestive function, is the relief of irritation, this should constantly be borne in mind, for in the administration of any remedy; if it should be productive of irritation, we must of course conclude, that such remedy, are improper in themselves, or employed in a manner unsuitable to the case: In the treatment of indigestion, we invariably find irritability, pain, and irritation, closely connected with debility. It however must be admitted, that, by far the greater

number, of cases, of indigestion, are solely dependant, upon a chronic inflamation, of the digestive organs, resulting from acute, as well, as a slow and continued irritation, produced by any unnatural impression, excited and kept up in the system, by other causes; In treating this variety, another course of medication must be pursued, entirely different; from what has been recommended, in that variety, which depends on morbid secretions, resulting from debility, In this variety it is necessary, that the patient, should abstain from all alcoholic stimulants, and also tonics until the inflamatory diathesis, be subdued, by bleeding, both general, and local, if required, with a strict antiphlogistic regimen, keeping all irritation, from the mucous lining of the canal; this with proper exercise in the open air, will often accomplish a cure, when a tonic treatment would have proved, highly detrimental; After making, these few remarks, relative to the general treatment, we would say, the indications natural, present, themselves into three great classes viz Medicine, diet and regimen, including under the

latter, air, exercise, bathing, &c. As medicines for to restore the morbid secretions, calomel, certainly claims, our highest attention, but when given alone, says Dr Graham, it is apt to weaken and irritate the stomach and bowels, and consequently, should be given, in combination, with some other alterative, such as Rhubarb & Ipecac. Some of the mild preparations, of mercury, can be used, with decided advantage, as the blue pills or Hydrargyrus cum creta. These preparations, being less irritating, than the protochloride, and with some dyspeptics, agreeing much better. This later medicine, however appears, to have a more decided effect in cases of debility, and, also, when the system is unusually irritable. The combinations of mercury, with James powder, or the compound powder of Ipecac, a small pill, made of these ingredients, may be administered twice a day, with some of the preparations, of tonics, with advantage. Perhaps, there are no two medicines, in the catalogue of the materia medica, which deserves higher merit in this disease, than Rhubarb, and Ipecac, and more especially, when the billiary ~~organ~~ secre

-tion is morbid, or deficient, they act both as a stomachic, and aperient, and appears to render altogether, unnecessary, any of the ordinary bitters, so efficacious, is this medicine, that I have seen decided relief obtained from its use alone, in a case of indigestion, in the short space of three months. Ipecacuanha, also holds, a claim, in the treatment of this disease, by acting very salutary, on the internal surface of the stomach, and bowels, and through which medium, on the skin and billiary secretions. In that variety, of the disease where diarrhoea is an attendant, symptom, Rhubarb, in conjunction, with magnesia, is a very useful remedy, an excellent antidispeptic pill. may be made, by uniting one grain of Ipecac, with two of Rhubarb, and two of soap to be taken twice or thrice a day as occasion may require. Nitric acid is said to be a valuable remedy & may be used beneficially, in that variety, in which, the stomach and duodenum, are chiefly concerned, its acts as a tonic and alterative, and at the same time, promotes healthy secretions. It is said in recent cases, it is of little service.

Mineral tonics are also highly recommended, in the treatment of this disease, and no doubt they have been indiscriminately used by some practitioners, in administering them, in the inflamatory form, or variety of this affection, but nowithstanding in that simple form of debility, heretofore described they are very useful, and sometimes, of more service, than any other description, of medical agents; but as their operations are various, they appear to be as much diversified, in their effects on the system; in some cases, the preparations, of Iron will prove the most beneficial, in others Bismuth, and in a third class nitrate of silver, or the sulphate of cupri or Zinc, Where there exists much pain in the stomach, the nitrate of Bismuth, may be used, with a great deal of advantage, especially where there is great local and general weakness, the subcarbonate of Iron, given in combination, with Rhubarb, or Ipecac, with a minute dose of aloes, is an excellen remedy.

Quinine has also been used, and highly extolled by some of the most eminent practitioners.

In adopting, the different medicine, to the

different varieties of this disease, It has been found where the stomach is the organ, principally, complicated, that the following remedies, appears to be the most useful. Pills of Rhubarb, Ipecac, with soap, mercurial alteratives, and where the disease is dependant on inflamation, bleeding, cupping and leeching, must also be used, more or less. The different preparations of Iron, Bismuth the alkaline solutions, nitric acid &c. The preparations of mercury, in this modification, is less required, than in the second or third variety, but, when it should be indicated, the blue pill may be used, with more advantage, than calomel. An agreable pill may be made, by combining Iron gr. Pil Hydrargyri with Pulv. Ipecac. Compositus, one grain, to be taken, every evening. When the small intestines, are the seat of the disorder, mercurials are generally much required, together with medicine, which will relieve the irritability of the parts, The following will be found to be a useful pill in this variety,

Hydrargy sub. gr. XII
Antimoni Tartar. " I

Pulv Opium gr. 1
Pulv. Gum Arabic. grs XXIV
~~M~~ in pillulas XXII

one to be taken every evening, until they produce the desired effect, Rhubarb pills may also be used with success in this variety, Sarsapa=rilla, both the decoction, and infusion have highly recommended, to relieve constipation, whic=h is general attendant in this variety, aperients are much indicated, and for this purpose calo=mel, Rhubarb, and Ipecac, hold a high repu=tate, and are to be classed amongst the best, This with exercise, and general attention to diet and regimen, is much required, in order to a cure In the third variety, when the billiary organs are chiefly the seat of disease, the different prep=arations of mercury, are much required, the blue pill, perhaps, will be found the best, five grs every night or twice a day, has been used with much success — the nitric & muriatic acid is much extolled by some practitioners, in this disease Dr Scott recommends, a bath made of the same medicines, and I can easily perceive the correctness

of this afection, tonics also may be given, after other means have been employed, bleeding by means of leeches or cups, with blisters, over the region of the liver, have been followed by the happiest effects, In the last variety, of indigestion, dependant, upon diseased condition, of the large intestines, an alterative pill, every night, may and perhaps, are always indicated, tonics also may be used, the preparations of Iron, and vegetable bitters in general, these medicines, should never be used, until the inflamatory condition of the system is subdued, by blistering, cupping, and leeching, the leeches ought always to be employed, or applied to the verge of the anus, A glyster is often necessary, to ensure a free evacuation, and for this purpose, a pint of gruel, or linseed oil, are the best, to relieve the irritation, which so uniformily exists in this variety; when contraction of the rectum, occurs, which is a common symptom in this variety, the stricture should be divided and relieved, by passing up a bougie, when the contraction, has become considerable, the patient frequently labours under nervous, depression & agit-

ation, occuring in paroxisms; relative to the treatment of the local pain and uneasiness, so generally experienced in this affection, it should be treated according to the indications, in all these cases general principles should be carefully observed, where repletion has been the cause, a gentle emetic is necessary to relieve the stomach of its burden, and where there is pain, from spasm, an anodyne is highly beneficial and for this purpose Opium & Hyoscyamus may be used, with decided advantage.

Diet

This part of the general treatment treatment, has I believe, been considered, a consideration of no little importance, the grand rule with regard to it is to eat and drink sparingly, and at stated intervals; some have recommended at eight and twelve, in the morning, and at four and nine in the evening, this as a general rule, is I think correct and should be rigidly adhered to; the patient should always be cautious, as to quality and quantity, of the former it will act as a irritant, and cause much depression, and uneasiness of the whole sy

=stem. If the later, it will give pain, by in=ordinate distention. When there exists a hard pulse, with much feverish heat, generally an inflamatory tendency, exists in the system, In such a case, often other antiphlogistic remedies have been employed, a vegetable, diet, and total abstinence, from all alcholic liquors, the most efficacious, vegetables, in this disease, are those that agree with the patient, and there, he must learn from experience, some have recommended turnips, french beans, asparagus, & potatoes, light plain puddings &c. but pastry of all kinds, are inadmissible, in every description of indigestion.

In such cases, where the patient is free from inflamatory symptoms, an animal diet will suit his case best, and for this purpose, the dyspeptic, should eat mutton, venison, lamb, and tender beef, these are found to be both wholesome and digestible, next to animal meats, we may mention partridge, pheasant, chicken, and hare, When any of the meats are eaten, either of the animal or fowl kind, they should be broiled, or roasted, and taken in a small quantity at dinner, at no other meal

Should a dyspeptic, indulge in eating animal food, as a general rule, the flesh of full grown animals, are better, than young ones, and perhaps there is no exception, All salted and dried meats are inadmissible, and even boiled fresh meat has its objections. All kinds of fish are objectionable, and should be avoided by the invalid, especially in the beginning of the disease, both animal and vegetable food cooked a second time; and therefore all hashes, stews and the like, should form any part of the invalids dish, all fluids are difficult of digestion, and should be abstained from; All kinds of wines, are inadmissible, except the white wine this may sometimes be given with beneficial effects, Toast water is an excellent drink; chocolate may be used for coffee, at tea and at breakfast, coffee should always be avoided; the supper should always be light and in small quantities, and for this purpose a roasted apple, or an egg, boiled lightly, agree well, In summer good ripe fruit, will make a grateful supper, When beer agrees with the patient it found to be an excellent potation, Oat meal gruel has been used by some dyspeptics with advantage=

In all cases the patient should well masticate his food, be of whatever quality, it may, and always rest a half hour, before any exertion, is made, and after each meal, in the sitting posture.

Regimen

A correct and uniform regimen, must be observed and strictly practiced, by the dyspeptic, in order to obtain a perfect cure; indolence in all cases, must be forsaken, and sedentary occupations given up - without which the prospect of a complete cure, can never be anticipated, much less permanent relief.

In the great majority of instances, permanent advantage can be gained, by the patient, if he will relinquish, his confined situation, and quit the confined air of large cities, and late hours, which are so common in such places, and exchange in return, the contaminated air, for pure, dry and bracing air of the country, this in connection with early rising, and exercise, will be found to act beneficial in all cases; It is from the common neglect of these rules, that dyspeptics, are not much bettered, by medicines, nor can diet, be employed with any advantage, nothing as a substitute should

be taken for country air; for nothing is so salutary
daily gentle exercise, cheerful company, and early rising
The patient is recommended, by some, to quit his bed
by six in the morning, in the summer, and by seven
in the winter, and after breakfast, take exercise
freely, for two or three hours before dinner; The
different kinds of exercise, that have been recommen
ended, by practitioners, that of walking and riding
has been considered, the best, used alternately, and
when the patients strength, will not admit of
walking, riding on horse back, is to be preferred.
A strict attention to diet is necessary, but, the prac
titioner, can not force too much, on his patient the
importance of regimen. Enlivening, conversation, and
cheerful company, are also requisite for the invalid.
proper clothing; The patient should always, wear
flannel, to keep up a uniform transpiration; the
feet and chest, especially should be kept warm.
A matress instead of a feather bed, is also recomm
ended, the atmosphere, should always be dry, when
the patient exercises; As an auxillary, to the above pre
scribed rules, of regimen, The tepid bath, claims our
highest attention, from ninety, to ninety five, degrees

to be the correct temperature, and resorted too, between breakfast and dinner. When the warm bath, cannot be procured, or it proves prejudicial, to the patient, sponging should be substituted, every morning always, rubbing the patient dry, with a coarse towel; the flesh brush, has also been used, with decided advantage, in one case under my own observation, kneading, as recommended, by Some, is highly productive of good effects.

Dissertatio Medica Inauguralis.

De Variolâ

Marylandiæ Academiæ

Præfecti, Senatus, Professorumque,

pro Medicinæ Doctoratûs,

judicio subjicienda,

Auctore

Samuele C. Baker,

Baltimoriensi.

MDCCCXXXV.

"causa latet, vis est notissima."

Patri optimo carissimoque
Viro praestanti clarissimoque
Preceptori ornato et illustri
Samuelli Baker M. D.
Has paucas paginas
Grati animi monumentum exiguum
Auctor Filius Consecrat.

Gulielmo. N. Baker M. D.
In scientia, in caritate,
maxime in corde
Fratri
hanc lineam inscripsit
qui in futuro ejus ardorem
facultatesque meritò honoratas
videt, frater.

De Variolâ

Omnium morborum pestiferorum origo ignoscitur. Quoad hunc morbum ex iis maximè lethalem, nostra investigatio pariter deficit. A Rhaze, medico Arabico preclarissimo primò accuràte descriptus est, ab illoque tempore, ab ejus devastationibus extensis exitiosisque toti mundo nimis familiaris facta. Mortus, horrido aspectu, unum quemque ejus halitui urenti confèstim oblatum avidè corripiens illumque ejus victimam miseram aut consumens, aut salutè reddens suis vestigiis, stigmateque perenni cicatricatum detorsatumque, omnium medicorum benignorum maximam curam precipuè exegit. Horum virorum illustrium deductiones, a seculo ad seculum mutatas perfectasque hæc dissertatio humilis brevitè dicet. Hujus morbi causa virus pestiferum est, magna potentiâ præditum, ac ab uno ad alterum ad omnes tam facillimè diffusa ut antiquitus ejus aggressionem mortales perpauci evaserint. Prima origo unde emanavit, in

caligine sempiternâ premetur. Conditiones iis similes unde originem duxit iterum evenire posse ratio docet) — aliquando in seculo presenti existere verisimile; sed si existent, procul ultra captum mentis humanæ jacent, non inventæ, nunquam inveniendæ. Effluvium non percipiendum, ubique diffusum, et nunquam viribus decrescens, a nostris investigationibus nimium secretum est. Sunt tamen aeris quædam conditiones quædamque constitutio quæ hujus viri aggressimi corpus humanum facile obnoxium reddunt. Sic videmus ut aliquandò magnâ celeritate se longe lateque diffuderit, atque repente inopinatèque extinctum sit — dum aliquandò, gradu lento sed certo progressu, a vicino ad vicinum ab amico ad amicum communicatum, profectum sit, nullum hominem relinquens qui ejus ignem contamentem non sensit. Morborum pestiferorum lex fortunatissima eandem personam nunquam bis afficit — Sine hac lege, omnium hominum sorte, miseria morsque jugiter inciderent.

~~ ~~ ~~

De preservatione a variolâ.

Qui virus vaccinum a vacca ubere receperunt, a viro variloso securos esse, jamdudum explorâtum. Quoad illos qui simili morbo apud equos pecoraque infectâ sunt, idem repertum. In hoc animalia pure variloso insertâ, morbi qui iis proprii sunt, vaccina etc. producti fuerunt. Contra, horum morborum pure in corpus humanum insertâ, variolæ aggressio non exinde metuenda. Etiam adhuc dicitur, verum pus variolosum vaccæ lacte commixtum, atque in corpus humanum insertum, vaccinam solùm producere. Academiæ Gallicæ Scientiæ hæc experimenta communicata sunt, atque in hisce regionibus quædam ex illis fausta confecta. Horum gestorum veritatem medici illustres præclarique suo testimonio firmârunt. Ab his veris corollarium sequens deducimus — hos singulos morbos unum idemque esse, tantos varios aspectus ostendentes quantæ varietates animalium in quibus existant. Habitus proprius corporis, suâ naturâ, suis legibus, alicujus morbi quo

afficiatur, cursum symptomatagque mutabit.
Hujus sententiæ veritas quoad vaccinæ et variolæ identitatem, nostræ rationi, exemplis vindicatum se commendat. Quod ad alios morbos attinet neque pariter certum neque momentosum est. Ex his observationibus ortus est alius qui in suis beneficiis omnes homines complexus est, scientiæ munus pro quo nullam æqualem compensationem recipere posset. Edvardi Jenner, medici conspicui reverendique laboribus hujus veri confirmationem diffusionemque debemus. In grati mundi memoriâ, ejus nomen conservabitur in æternum.
Morbus vaccina mitis innocuusque, in suâ naturâ variolæ similis consentaneusque, hujus morbi aggressioni plerumque obstans, ejus spoliationes perniciosas cohibendi gratiâ, a medico adhiberi potest. Quum in corpus humanum vaccinæ virus inseritur, hæc symptomata fiunt: Die tertio post ejus introductionem circa punctum capit inflammatio, crescit gradatim — primo formatur vesicula quæ die novo in pustulam maturam convertitur. Hæc

tempore totius corporis commotionis signa apparent, febris cum algoribus alternans - glandularum axillarium tumefactio - inflammationis areola rubra, tumorque durus pustulam circumlistens, usque ad diem undecimum crescunt, post quem morbus gradatim deficit, diesque vigesimo quarto scabies separatur. Vaccinatio optime confecta variolae aggressionem plerumque arcet. Si ungnam aggrediatur, a morbo tam innocuo fit nulla injuria. Secundum aegroti corporis constitutionem, virique puritatem ejus secretus certa aut incerta erit. Ab his causis oriuntur permultae modificationes mutationesque quibus nomen "varioloidea" est. Variolae viri inoculatio, corpore recte preparato, quamvis olim ubique solita, propositum temerarium perniciosumque nunc plerumque reficitur. Consilium sequens tam certum quam securum est. In unaquaque personâ a puris variolosi insertione, vaccinationis potentia tutelaris probatur aut repellatur. Puris vaccinae vim puritatemque preservandi gratiâ, in vaccam juvenem sanamque

puris variolosi insertione, sæpe obtinari oportet.

De Symptomatibus.

Hujus morbi formæ variæ ab ipsius violentiæ gradu solùm et omnino oriuntur — Cùm mitis est, pustulæque solitariæ sunt, Variola distincta nominatur — cum pustulæ in commune miscent, totâ corporis superficie impletâ, confluens. Utraque tamen forma cum alterâ miscet, perditurque hæc distinctio inutilis. Eruptione permultum extensâ, irritatione ideòque maximâ, speciem typhoideam morbus sumere solet, vitam ægroti, aut alvi aut sanguinis profluviis profusis corripientibus. A tempore quo corpori vivo objicitur ad primorum symptomatum manifestationem intereunt dies ab octo ad quindecim. Languor, inquietudo, frigora quæ rubores febriles citò sequuntur, capitis, dorsi, lumborumque dolor, cum pulsu plethorico, gradus incipientis symptomata. Hunc sequuntur nausea, emesis, præcipuo epigastrio dolor acutus, in febris summæ formatione omnia conjuncta — In diaphragmatis inser-

tionis cursu, dolor a pressurâ signum singulare constansque creditur. In totius corporis superficie vehementia uboris, presertim in facie. In hâc sequ ac in omnibus febribus, alvi aut laxitas aut constictio fit. Primo alba lingua crustâque aliquantò cooperitur. Omnia hoc symptomata impetu crescunt, comitata plerùmque tusse, gutturis pectorisque dolore, cum spiritus magnâ arctatione. Die tertio aut quarto eruptio fit. Parva puncta rubra circa tempora oraque primò apparent, et sic deinceps in corporis locis variis. In horis triginta sex eruptio conficitur, feregue omnium dolorum emendationem affert. Rubra fit lingua, faucium que dolor gravitèr crescit. Sed quoad cetera, cibi appetentia redit — languor et inquietudo animi solutis cedunt, mens vigorem recuperat iterùmque ægrotus ipse fit. Morbus interim certamini secundo gravem primum, duriori et lethaliori se parat. Pariem punctum fluido aquoso sensim impletum, apice parvulum depressa. Inflammationis

areola circumstans expanditur, dieque septimo aut nono ejus fluidum in pus converti, pustulamque speciem sphericam sumere videmus. Nunc fit facici tumefactio subcutanea quæ totius corporis superficiem pervadit. Die duodecimo pustulæ penitus maturescunt, post quem gradatim deliccant. Nunc fit salivæ crassa glutinosaque, adeoque profusa ut difficillime expelli queat. Die decimo aut duodecimo, febre secundariâ ægrotus afflegitur. E tanta suppurationis superficie quanta irritatio orietur? Functions cutaneâ naturali omnino obstructâ, hæc febris irritativa expectanda — Cum sub hujus pestis odiosæ actione continuâ corpus defetiscitur quum in certamine lapsatur natura, tum oriuntur symptomata non quæ, corpore vacillante trementeque, e vitæ fonte ultimam guttam proventam exhauriunt — Sanguinis fluxus profusus, diarrhœaque dissolvens, medici laboribus arduis permagnisque,

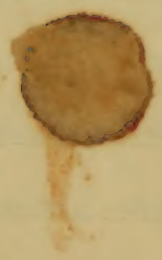
frequentius obstant ægrotusque in diluvio perit.
Febre secundariâ cedente, corpore debilitato
depressoque, suis functionibus solitis nondum
restitutis, temperatis varietatum spolium
facile fit. Pulmonum apparatus in morbo
jamdudum implicatus, inflammationis ag-
gressioni, nunc præsertim obnoxius fit.
Plures eatus in quibus ægrotus, variolæ
periculis evasis, omnibusque finem felicem
pollicentibus, Pleuritide, aut hâc pessimâ
Bronchitide corruptus est, vidi.
Odor qui hunc morbum comitatur ab erup-
tionis manifestatione, secundumque Nathan-
ielis Potter, in medicinæ academiâ nostrâ
Professoris ornatissimi sententiam, ab ægri-
tudinis primo incepto, proprio, singularis,
fœtidissimaque. Qui sensit, meminisset.
Ægrotus, variolâ confluente oppressus, spec-
taculum sordidissimum squalidissimumque
offert — aspectu externo mutato, pure fluente
illito, spiritu pestifero aeri suam novam

infectionem perpetuò cedente — effluvio amico hostique pariter lethali circumventus, talis est qui medici benevolentiam caritatemque precatur. Primò aliquando fit, ob frigoris actionem aut corporis incapacitatem eruptionem vix videri aut vicam, citò retroceder. Manus pedesque frigidi, corporis superficies livida, egrotusque frequenter stupidus fiunt. Viscerum intimorum hac oppressio sine ullo auxilio, in mortem exit. Huius morbi speciei communi hac descriptio consonat; in gradibus variis, variis impetu symptomata videntur.

De Pathologia.

Variolae virus, credimus, et per nervorum terminationes sentientes et per sanguinis cursum, applicatum, totum systema nervosum debilitat simul ac potestas nervosa laeditur, omnes corporis partes munere solito aegre funguntur, cor in suo pulsu vacillat — circa cor vasaque magna stagnat sanguis, unde oritur senens

familiaris epigastrii gravedinis. Hæc donec formetur frigus perfectum, persistunt. Sanguinis ad hunc modum congesto, irritationemque agente, ad hoc onus deficiendum cor, stimulatur — sed hæc reactio in Salutis gradu non quiescit — donec constituatur febris, pergit, eruptionegue huic morbo propriæ peragitur. In cursu progressugue omnibus febribus idiopathicis similis est — Systematum nervosorum, circulantium, secernentium gue alterna perturbatio. Sed hoc lineamentum momentosum, propriumgue habet, in corpus virus introductum esse, atque per ejus incubationis spatium sanguinis mutationes magnas malasgue, systematisgue nervosi depressionem gue morbi totam speciem variant, produxisse. In eruptionis confectione symptomata propria gue jampridem descripta sunt, oriuntur. Broussais reformationis patris Gallici illustris sententia, ventris intestinorumgue inflammationem in



febris eruptivæ symptomatibus se exhibentem, hunc morbum esse — ab eruptione cutaneâ cutaneâ pro tempore curari, ac eruptione peractâ cessatâque, primam inflammationem, febrem secundariam formantem redire — Huic doctrinæ investigandæ nobis est nullus locus. Nec gestis nec philosophiâ sustineri, nostra humilis sententia. Ob ejus nitorem solertiamque, connexionis inter causam effectumque in hoc morbo aspectum simplicem naturalemque deserere nunquam possumus.

De ratione Medendi.

In febre eruptivâ medici auxilium plerùnque solicitatur. Symptomata quæ ei pertinentia suprà dedimus, impetu magno progrediuntur aliisque in rebus emissionem sanguinis copiosam exigerent. Venæsectionem semper impropriam perniciosamque, non dicimus. Neque quam. Excitationis gradus permagnus aliquando fit, qui cerebri destructionem minatur, in quo sanguinis emissione hic exitus solùm prohibere

potest. In variolâ hujusmodi reminisci oportet: Febris non medico vincenda; finem certam prodere ~~certa~~ est, hoc finis, eruptionis prosperae peractio. Eruptione non prosperâ, quiddam viscus intimum morbi spolium fieri, aegrotumque mori, experientia docet. Ab his causis nullus medicus febrem sopire conatur; si sanguinem detrahat, ad excitationem intemperatam moderandam, eòque eruptionem extensam prohibendam in animo est. Hunc morbum pro certo tempore durare oportet, nullaque medicinae potestas decurtare potest. De corporis vigore infirmando certaminis incepto, maximam curam agere oportet, quum ante finem omnes vires vigilanter sint preservandi. Neque magnum auxilium efficit venaesectio; post consolationem brevem, capitis dolor tam nunc quam antea severus erit ---- ut omnis irritatio intestina amoveatur, medicinarum aperientium usu laxitas alvi procuranda --- Potiones frigidae gratae que, sodae aqua, aqua citrea

aut potassæ supertartratis solutio, ægroto erunt atque lætæ atque utiles – Sit cubiculi temperatus amœna, neque frigida, neque calida. Odor insuavis, solutionis sodæ chloridi evaporatio, aquâque tepidâ frequens ablutio, ægroti solamini, jucunditatique permultum addent. In febre eruptivâ alimenta perpauca, perpauperaque; post hoc tempus mitia nutrientiaque, jus pullinum, oryza, etc. Si oriantur symptomata typhoidea, in speciegue confluente oriuntur plerumque, Quid fieri oportet? Hoc tempore, effectum tàm faustum felicemque quàm stimulantia, nullum remedium habere potest – Alimenta maximè nutrientia benèque condita – vini ardentis potiones frequentes, constanter sed non immodicè administratæ. In febre secundariâ maximâ irritatione existente, somnium quietum, suavemque anodyna procurabunt – – Cubiculo lucis exclusio ad prohibendas foveolas cutaneas

que hujus morbi horridi monumentum æternum ponent, magnòque auxiliabitur. Ab ægroti infirmitate in recuperationis tempore oriar prodsunt morbi qui secundum sua symptomata medendi sunt.

"Pallida mors, æquo pulsat pede
Pauperum tabernas regumque turres"

"Hoc autem de quo nunc agimus id ipsum est
quod utile appellatur".

Cicero.

—"and what is writ, is writ;
Would it were worthier!"

Byron.

Dissertatio Medica Inauguralis
de
Natura Chemica et Bili Pathologia,
quam
Nobilissimi admodum Viri, Academiae Marylandiae
Praefecti,
nec non
Amplissimi Senatus Academici,
et
Clarissimae Facultatis Medicae,
Pro Gradu Doctoris
Summisque in Medicina Honoribus ac Privilegiis
Rite et legitime consequendis, examini
Subjicit
Johannes Carolus Nairn.

Kalendis Februarii
MDCCCXXXV.

Illustribus admodum Viris
In Universitate Marylandias
Professoribus,
Quos
Non magis summi muneris Medici Honores,
Quam Ingenua Civium Veneratio
Dotes eorum animorum
ac Publicam Fidem, ac Privatam simul
Virtutem admirantium,
Condecorant;
Tenue hoc opusculum
Summa cum Observantia
Offert
Auctor.

De Natura Chemica et Bili Pathologia.

Primum, de Bilis secretionis historia, fusè disserere proposueram; me vero, rem tam magni momenti intra limites hujusce dissertationis solitos, vel brevissime tractare non posse, cito reperi. Necesse igitur fuit ut meipsum, ad investigationem minus late patentem, atque hujusmodi operi magis idoneam, cohibeam. Quum autem in plerisque medicis scriptoribus de aspectu morboso Bilem comitante haud raro mentionem fieri, notavi, quae de hac re observarent medici, colligere atque quantum pro comperto ducuntur explicare, haud inutile aut parvi momenti mihi visum est. - Hac de causa, disquisitionibus physiologicis de ejus secretione omissis in rem hujusce tentaminis, Bilis Pathologiam nunc selegi. Itaque de hac re haud satis pro ejus meritis ab medicis scriptoribus exculta, meo ingenio valde diffisus, scripturus sum.

Bilis Pathologia duobus praecipuis modis considerari potest; quorum alter ad notas cujuscunque generis morbosas, quae naturam humoris physicam chemicamque afficere observantur; alter ad effectus in corpore his mutationibus morbosis inductos pertinet. Horum priorem seligere visum est, de qua in hac disputatione disseram ideoque ad hanc potissimum animum intendere oportet.

oportet. Pauca vero de hujus humoris natura, in conditione ejus sanâ, quo aspectus morbidos inter et sanos, facilius dignoscatur, praefari oportebit.

Bilis Descriptio. — Bilis ab ductu hepatico emissa, quod ad proprietates ejus externas ab illa in fellis vesicula repertâ manifeste discrepat. Altera, quae Bilis hepatica appellatur, tenuis, sub-flavo colore, odoris expers, atque subamara est. Altera autem, cui nomen Bilis cystica, spissior est et multo magis acris, quoniam partes ejus aquosae, dum in fellis vesiculâ stagnat, absorbentur; atque quidem hanc Bilem in quantitate satis magna collectam, chimici atque physiologici praecipue investigare soliti fuerunt. Bilis cystica, dummodo haud morbosa, plerumque viridi-flavo colore, gravitate ejus aquam superante (quum pondus specificum sit ad 1.0026) odore haud acri, atque sapore perquam amaro est. Haec Bilis viscosa oleosaque est, speciemque praebet turbidam atque multum commotâ, saponis instar, cum aqua mixtâ spumat. Acidis atque Alcohole aliisque materiis chemicis, quae ejus principia dejicient, resolvi potest. Celeberrimus Thenard qui principia hujusce humoris, modo ratiocinandi a Verulam proposito, experimentisque ingeniosis detexit, et cui notitiam naturae suae chemicae ex magna parte debimus,

debemus, affirmat, mille et centum partes Bilis hujusce generis, ex mille partibus aquae, quadraginta duabus albuminis, quadraginta una materiae resinosae, ex duabus ad decem materiae flavae, ex quinque ad sex Sodae puae, atque ex quatuor ad quinque Phosphatis, Muriatis, et Sulphatis Sodae, Phosphatis Calcis, et Oxydi Ferri constare. Ex quibusdam experimentis anno millesimo octingentesimo decimo octavo ab Chevallier institutis, paulum quoque Picromelitis, materiae peculiaris, quae a Thenard in bovis Bile reperta fuit, et quam ille chemicus putavit materiam esse per quam Bilis resina soluta tenetur, videtur contineri. Chevallier hanc materiam tantum in hominis Bile detexit, ex vesicula fellis post mortem recepta; eam vero in jecinoris Bile, vel in illa per vomitum rejecta, haud deprehendere potuit. Hanc quoque materiam Professor Orfila, in Bile hepatice existere negat, atque verisimile est haud aliter Bilem cysticam et hepaticam differre ultra ea quae jam notata sunt discrimina, qualia ab conditione magis minusve dilata pendent, nisi affirmamus auctore Cadet aliquid Acidi Hydro-sulphurici in Bile cystica existere, quod non in Bile hepatica reperitur. Fas sit etiam hic mentionem facere de observationibus quibusdam a M. Chevreul

facts

factis ex quibus discimus, illum Chemicum, materiam ab eo Cholesterinam dictam, (de qua postea fusius loquitur) in Bile quorundam hominum, vel vi externa subito interemptorum, vel morbo aliquo mortuorum, reperiisse. In quibus omnibus exemplis quantitates variae Acidorum Olei ac margarici quoque repertae fuerunt.-

De Causis quae Secinoris Secretionem Afficiunt.

Hepar aeque ac alia organa glandulosa, quod ad ejus munera, rebus quae excitant, conditionibus structurae morbidis, idiosyncrasia, rebus mechanicis, vel aliis quibus functiones ejus impediuntur affici solet; quapropter manifeste patet, Bilis secretionem ex necessario, quantitate aeque ac qualitate sua, mutationibus variis atque evidentibus, obnoxiam esse.

Hinc fit ut vel nimis parca vel minus solito acris sit, ut in quibusdam alvi astrictae exemplis videri liceat; aut praeter naturam augeri ac nimis acris fieri potest, haud aliter quam in Cholera accidit, aliisque morbis minus vehementibus, quales sunt malum vulgare Biliosum, "Embarras Gastrique" apud Pathologos Gallicos, Diarrhoea Biliosa, &c; vel Bilis prorsus impediri potest, quod in morbo Arquato fit,- Hic quoque humor multas mutationes colorem aliasque proprietates afficientes, subit. Colore nigro, viridi, subrubro etiamque

coloris

coloris expers, vel albumine similis, aquosus, saporis expers, acris vel etiam acidus atque effervescens fit.

De Coloris Varietatibus. — Coloris varietates, quae vulgo obtinent, ab actione morbida haud plerumque deducamus oportet, neque pro morbi signo haberi debent, quamquam Celsus, Bilem nigram vel viridem emovere, indicium magni momenti periculosumque ducere videtur. Hic color viridis, uti censet Huxham, ex acido in Bile existente, oritur; atque quoris acidi major, secundum illius sententiam, color spissiùs virens in nigrum vergit. Sydenham contra, eo ratiocinandi modo qui tunc temporis valebat, arguit Bilem porraceam vel viridem ab motibus spirituum irregularibus nimia copia ad jecinoris regionem ruentium, originem habere. Opinio vero a Huxham edita, satis, pro rata parte, justa videtur; conditio autem scientiarum in eo tempore, explanationem rerum quas notavit plenam proferre, vix eum permisit. Acida colorem arte viridem Bili communicant, vel saltem materia hujus fluidi colorans tantum ab eis afficitur, ut ad has actiones subeundas, a quibus mutatio, de qua agimus, originem trahit, aptior redditur. Nonnullae observationes a professoribus clarissimis Tiedemann et Gmelin Heidelburgiensibus factae docent, hanc actionem in conjunctione chemicâ inter principium colorans

(quod

(quod flavum naturaliter esse putant) et oxygenium consistere. His philosophis repertum fuit, ut omnia corpora quae facile oxygenium praebent, nimirum Acidum Nitricum, &c. effectus insignes in Bilem ostendant, et ad colorem ejus primo in viridem, postea, additionibus serie continuatis, in caeruleum, purpureum, et rubrum convertendum valeant. Quod non porfici ab ipso acido potuisse probaverunt; nam Acidum Muriaticum Bile commixtum, quae occlusa fuit ab aëris accessu, nullam mutationem effecit. Si autem aëri atmosphaerico libere expositum fuit, praecipitatum flavum ab acido demissum cito et semper in colorem viridem transiit. Aër ipse, omnino sine Acido ad hanc mutationem efficiendam pollebat, et in omnibus exemplis oxygenium absorberi probatum fuit. — Verisimile igitur videtur has colores varietates antea descriptas originem ducere ab acido alicujus generis in Bile existente, ex quo oxygenium ad mutationem praebendam necessarium potest abstrahi; vel, si acidum hujusmodi nullum reperitur, oxygenium ipsum, aliquo alio modo minus evidente, cum secreto humore effundi. Tam difficile est autem, bene veritatem alicujus opinionis quae ad actiones corporis vivi attinet, demonstrare, ut nequaquam oportet, utcunque videatur probabilis hanc temere accipere theoriam. Res tamen, quod faustum,

ad

ad quam refert haudquaquam est magni momenti.

De effectibus Stimulantibus Inductis.

Effectus stimulantium in hepar manifeste patent; praesertim si in animo reputamus modum in quo Bilis, Cholera Indiae Orientalis hominem vexante, afficitur. Ardor Solis vehemens in ea regione, fortasse quoque victus ex condimentis quo luxuria orientalis ad cibi appetentiam languidam reficiendam utitur, hoc viscus ad Bilis secretionem nimiam stimulat. Hinc fit ut intestina plus justo onerentur, atque natura nisu perquam vehementi utitur, ad profluvium hujusce humoris nimis copiosum removendum. Calor etiam, ut verisimile est, auctam secretionem concitat in vulgare Diarrhaea Biliosa, quae Aestatis finem versus, vel ineunte autumno homines tentat. Affectus animi quoque, injuriae praesertim capiti illatae, ususque nimis liberalis liquorum spirituosorum ad hanc secretionem augendam magna vi pollent, quod ex observationibus quotidianis fere innumeris satis plane constat.

Mutationes a Structura Morbida. Bilis, hepate tuberculoso, coloris expers aliquando videtur; hoc quoque fit in illa ejusdem organi conditione quae Gallicis Scriptoribus "Foie Gras" appellatur; in qua textura totam mutationem insolitam in materiam adipoceae similem patitur. Sectione jecinoris hoc morbo laborantis facta,

factâ, ductus biliares vix deprehendunter, atque Bilem coloris expertem, aut liquorem viscidum tantum continent. Materia quoque huic similis in fellis vesicula reperitur. Baillie exemplum narrat in quo Bilis hunc aspectum praebuit, ovi nempe incocti albuminis instar. Secur morbosum atque tuberculis strumosis obtectum fuit. A quibusdam observationibus Andral prolatis, videtur Bilem hujus generis in nonnullis aliis hepatis affectionibus quibus affixa sunt nomina generaliter nondum recepta, nempe in Cyrrhosi a a Laennec descripta, aliquando repertam fuisse. Haec Bilis coloris expers ex albumine ~~atque resina constat~~ fere prorsus, et si glandulae structura non admodum mutatur, ex albumine atque resina componitur. In morbo regiô Bilis viscosa, crassa similis pici, longe itaque a specie naturali mutata, haud raro observatur. In vesicula fellis etiam hominis, qui dum hoc morbo laborarit mortuus est, substantia peculiaris a M. Bizio, Veneto, fere quatuordecim ab hinc annis detecta fuit. Colore viridi erat, pellucida, saporis expers, unctuosa, et piscem putrescentem olebat. Cum Acido Nitrico mixta, colorem purpureum praebuit, propterquam dotem nomen ei Erythrogenium, ex verbis graecis ἐρυθρὸς (ruber) et γεννάω (gigno) compositum, datum est. Vesicula fellis quantitatem fluidi peculiaris, Bili sanae omnino absimilis, praeterea continebat.

Credo

Credo nulla alia hujusmodi exempla, praeter hoc adhuc tradita esse; nulla saltem alia unquam narrata vidi. Vix itaque restam rara inter conditiones Bilis morbosas recenseri debet. Nihilominus propter naturam ejus notatione dignam, et ob alias causas mentionem fortasse meruit. —

Bilis vel in sanâ conditione vires ad excitandum valde idoneas habet, quales efficiunt ut si aliquo casu in abdominis cavum effundatur, vel in texturam cellulosam injiciatur plerumque homo interimatur. Hinc fit ut vulnera fellis vesiculae, quorum exempla magni momenti, a Sebatier in eximio suo opere de chirurgia tradita sunt, lethalia dicantur. Acrimonia vero hujusce humoris, morbo ut supra diximus, augeri potest. Morgagni affirmat, Bilem infantis qui febre tertiana tentatus, convulsionibus interemptus est, adeo acrem fuisse ut duae columbae quae particula ejus minima sub cute per scalpellum inducta, tactae fuerunt, paucis temporis momentis pericerunt. Gallus quoque qui portionem ejus pane mixtam in ventriculum recepit, fere in ipso temporis puncto convulsionibus vehementibus interiit. In Lienteria, Bilem admodum acrem esse medici observarunt. In hoc morbo vires ejus quae excitare solent, adeo augentur ut alvum valde purgare videantur. In quibusdam canalis intestinalis affectibus exulceratis, copia ultra solitum resinae

perquam

perquam amarae in Bile existere videtur. Verisimile est, ut ex hoc conditio intestini morbosa oriatur. Ex hisce jam prolatis de Bilis effusae effectibus conjecturam facere licet, hunc humorem aliquo modo in sanguinis circuitum injectum, similes edituruum ipse effectus. Hoc vero, ut videtur, non ita se habet. "It produces" dicit auctor Clar: Mason Good, "a sedative rather than a stimulative effect upon the blood and instead of rousing to additional energy, produces weariness and inactivity." - Bilis etiam in exemplis morbi arquati absorpta, effectus in genus nervosum valde insignes, delirium nempe, convulsiones ac coma, aliquando producere videtur. Cujus rei exemplia nonnulla a Morgagni traduntur, similia quoque a Doctore Marsh, medico Eblanense, narrata sunt in tractamine ejus eximio de Ictero.

De Proclivitate in Morbos Biliosos. In quibusdam hominibus, jecur munera insolita vi praedita, per totam vitam habere videtur, ideoque morbis biliosis semper obnoxii sunt. "Cependant rien de plus commun" dicit Illustr: Bichat "predominance dune systeme de la vie organique sur les autres systemes; tantôt c'est l'appareil vasculaire, tantôt le pulmonaire, et souvent l'ensemble des organes gastriques, le foie surtout, qui sont superieurs aux autres pour leur action, et qui impriment même par la un caractere particulier

"particulier un temperament de l'individu".
Huic proclivitate quae habitus biliosus vulgo appellatur, indiciorum injucundorum caterwam, nonnullis in corporibus ciborum usu nimis liberali vel aliis causis quae parvi momenti videntur, inductam, ascribere solemus.

De effectibus, Rebus quae Functiones Hepatis impediunt inductis. Quidem medici veteres, biliosam plethoram quam illi vocant, existere, in qua Bilis, seu ejus elementa, in sanguine abundant, circuitusque ejus pervehuntur atque hinc febres aliosque morbos oriri existimarunt. Notiones vero illorum hac de re minime accuratae sunt. Bilis autem interdum in sanguine reperitur; neque ideo res ita se habet, neque ideo effectus quos ei hi medici attribuerunt, excitat. Hoc quidem fit, quoties hepar aliquo modo functionibus suis impeditur, ut in morbo arquato, in quo (uti censet Hallerus) Bilis protinus post secretionem ab ductibus extremis in vasa sanguinem vehentia sese refundit, et ab eis vehitur. Omnibus autem in hujusmodi exemplis pro comperto habemus, hunc humorem vel materiam quae ei dat colorem quodammodo in corpus absorberi, ubi cum liquoribus aliis, in quibus per analysin chemicam detectus fuit, miscetur, atque in organa varia quae

in

in colorem flavum convertit, auferitur. Hic color flavus ab conditione dilutâ oritur, in qua materia quae colorem praebet, deponitur. Diu enim ab experimentis compertum est, colorem viridi-flavum, Bile tantum cum aqua mista, protinus in flavum purum plus minusve vividum, pro rate parte cujusque mutari.
Aliquando autem, etiamsi raro, cutis colorem viridem ostendare videtur. "Nous avons vu" dicit Chomel, professor Parisiensis, "la peau offrir une teinte verte très marquée chez un malade qui paraissait avoir une affection du foie" — quod vero ab illustrissimo Baillie ac aliis quoque observatum fuit. Absorptio Bilis haud raro in Hepatitide et quidem in omni jecinoris morbo evenit, in omnibus quorum necesse est ut a quadam re quae excretionem impedit, oriatur. Inter causas excretionem impedientes concrementa biliaria recte recenseri solent; ad has concretiones investigandas medici assidue atque diligenter sese contulerunt, atque quidem haec calculorum genera, quod ad Bilis Pathologiam attinet, considerare operae pretium est.

De concrementis Biliariis. Concrementa biliaria interdum quam plurima reperiuntur. Baillie de fellis vesicula in Musaeo Hunteriano conservata mentionem facit quae mille hujusce

generis

generis concretionum continebat. Aliud exemplum Doctor Munro, professor Edinburgiensis, proponit, in quo mille et quingenti horum calculorum fuerunt; atque exemplum tertium magisque insigne a Morgagni profertur, qui tres mille calculos biliares in eadem vesicula collectos reperit.

Magnitudine pisi usque ad ovi columbae variant. Grandiores autem interdum reperiuntur, atque nonnullis in exemplis cavum fellis vesiculae totum implerunt. Unum horum Richter vidit, cujus quidem pondus tres uncias et dimidiam aequavit. Haller de calculo loquitur, qui quatuor uncias pondere habuit; atque exemplum hujusmodi a Sarrau naratur, in quo calculus longitudine quatuor pollices manus, tresque ambitu aequavit. Sabatier autem qui hoc exemplum citat, huic fidem adhibendam esse negat. Morgagni qui de hisce concretionibus fusius scripsit, atque fortasse fere omnia, quae adhuc de eorum proprietatibus externis pro comperto habentur, proponit (quamquam accuratius eorum naturam chemicam hodie intelligimus) nonnulla exempla notabilia tradit in quibus calculi hujusce generis permagni reperti fuerunt. Sommerring quoque affirmat, calculum hodie Viennae esse ab ipso deprehensum, cujus diameter longior pollicis manus magnitudinem exaequavit. Exempla quaedam

hujusmodi

hujusmodi ab auctoribus recentioribus in lucem edita fuerunt, ac inter haec Thomas (Londini) exemplum magni momenti praebet, in quo concretio ad unam partem, fere quinque pollices manus ambitu, ad alteram partem tres pollices manus et amplius exaequavit. Doctor Marcet analysin hujusce calculi instituit. Exempla quoque ab Scriptoribus Gallicis tradita sunt in quibus calculi biliares intra jecinoris materiam ipsam ad ovi gallinae magnitudinem reperti fuerunt, et illic etiam in numero permagno occurrunt. Doctor Potter, in alma hac Academia illustrissimus professor, calculum in ipsa jecinoris materia reperisse affirmat, cujus diameter sesquipollicis magnitudinem aequavit. J.G. Walther exemplum mirabile narrat in quo universam hepatis substantiam aliquot millibus lapillorum obsessam vidit.-

De compositione chemica.- Calculi biliares, quod ad elementa prima multum variant, atque hac de causa ab auctoribus ad classes diversas referuntur. De his vero haud quidem opus erit ut in longum disseramus; quoniam proprietates structurae eorum peculiares, quae diversis Chemicis detectae sunt, tantum in animo est describere.

Fourcroy primus in suis investigationibus

notiones

notiones accuratas de harum concretionum natura edidit. In plurimis earum materiam adipocerae admodum similem existere reperit. Nonnullae concretionum ex hac materia sola formatae sunt; aliis aliquid materiae subflavo vel fusco colore insuper additum fuit. Hae observationes postea experimentis a Thenard institutis corroboratae fuere; a quo quidem nomen adipocera, materiae a Fourcroy detectae impositum fuit. Chevreul autem hoc nomen rite imponi posse negat; atque hanc materiam ab adipocera pura, sua natura multum dissedere affirmat, quoniam saponem cum alcalinis formare non potest; hac de causa materiam sui generis esse putat; nomenque Cholesterina huic materiae ab illo chemico datum fuit. Nomine vero priore medici auctores etiamnum uti solent.

Doctor I Davy plurimorum biliarium calculorum analysin instituit, atque ejus observationes in lucem a Doctore Munro, professore Edinburgiensi, qui ad hanc investigationem eum hortatus erat, prolatae sunt; quarum compendium praecipuas res, quae medici hac de re compererunt, manifeste exponet. Calculus ab illo chimico experimentis subjectus ex adipocera pura, qualis a Fourcroy descripta fuit, constitit. Aliae harum concretionum

concretionum ex hac adipocera et quantitate materiae nigrae cuius natura haud pro comperto fuit, constiterunt. Tertium genus calculorum pluribus materiis compositum fuit, atque in centum partibus, ex octoginta partibus adipocerae, et tredecim Bilis, duabus materiae fuscae quinque aquae constitit; Bilis atque materia fusca in medio positae et ab adipocera circumdata fuere. Analyses quorundam aliorum institutae fuerunt, quorum natura perquam similis, proportione autem atque ordine partium ex quibus constiterunt variantibus. Alii ex Bile, materia fusca et aqua tantum formari videbantur. Forma quoque haud semper eadem fuit; alii ovata, cubica, polygonali forma; alii spherae-forma tuberculaesque vel omnino globosae fuerunt. In aliis textura folii instar; in aliis textura homogenea fuit; atque quidem in aliis nucleus erat circa quem partes externae collectae fuere. Coloris quoque varietates ostenderunt. Hic fortasse licet addere ut hac concretiones aliquando ex crystallis veris constent. In quibusdam exemplis quae vidi, crystalla spiculorum forma et quod ad axin concretionis, ad perpendiculum posita fuerunt. Haller, Sæmmerring Walther, aliique auctores qui ad hanc Bilis Pathologiae partem investigandum

sese

sese dederunt, descriptiones huic valde similes, quantum ad proprietates externas protulerunt. Nulla autem ratio comprobata, de modo in quo hae concretiones, vel in jecinore vel in fellis vesicula deponuntur, adhuc ab illis reddita fuit. Observationes vero de Cholesterina in Bile humana existente a Chevreul prolatae, si unquam ab aliis chemicis recte probatae fuerint, omnibus hujusmodi investigationibus futuris lumen maximum certe allaturae sunt.

Calculi Biliares interdum in cysto vel ductibus irritamentum excitant, interdum tamen nullis indiciis sese monstrantibus quam plurimi existunt, atque sectione cadaveris tantum reperiuntur. Aliquando ductum impediunt atque fellis vesiculam distendunt. Duo hujusmodi exempla insignia a Morgagni et Van Swieten citata sunt, in quibus Bilis accumulata atque distentio cysti subsecuta fuit. "Minime" ait "negligendae sunt observationes duae quas nuper apud amplissimum Swietenium legebam, Illustr. Edinburgensium alteram, qui cystim octo libras Bilis continentem, idque in duodecimi puero, deprehenderunt; ipsius alteram, qui in muliere cystim eandem comperit distentam adeo, ut ad os usque Ilium dextrum perveniret." Affirmari potest quasi e contrario, fellis vesiculam conditione solita circiter unciam Bilis unam tantum

continere

continere et extra jecinoris marginem paro protendere solere.

Hae mihi praecipuae observationes, quae ad huc de hac parte historiae Bilis factae sunt, videntur. Ne diutius tempus teramus, vel potius ne diutius obtundamus aures vestras de mutationibus quibus Bilis ab morbo obnoxia est, liceat praeponere alias esse quae morbosae haud considerari possunt, et quae ab aetate hominis pendere videntur. Sic in foetu, bilis multo minus acris et amara, quam aetate magis provecta, atque proprietates quae Bilem adulti distinguunt, tantum paulatim acquirit. In foetu circa mensem quartum, fellis vesicula humore mucoso in rubrum vergente impletur. –

An
Inaugural Essay
on the
Importance of the Study of Therapeutics
and
Materia Medica
submitted to the Examination of the
Provost, Trustees,
and
Medical Faculty
of the
University of Maryland
for the degree of
Doctor of Medicine
by
John H. Barnett
of
Talbot County
Maryland

1835

To

Professor Dunglinson of the University of Md

This thesis is inscribed,
as a testimony, of the high
regard, entertained for the
powers of his mind, and the
generous sentiments of his heart.
by his sincere friend, and
pupil - John H Barnes

St Michaels
Talbot County Md

On the importance of Studying Materia Medica.

Of all the branches of medical science, that are taught in modern schools, none can afford to the enquiring mind of the Student, a wider field of useful and necessary investigation than that of Materia Medica. Of all the branches it is perhaps the one least generally understood; and as yet susceptible of the greatest improvement. None can more fully demonstrate the great and indispensable advantage attendant on systematic arrangement. None, convince us more strongly of the truth that confusion is a monster in science. This want of system joined to the great variety of articles contained in the list of Materia Medica may explain partially the want of success that has untill lately attended the labors of many illustrious Physicians, whose attentions have mainly been directed to ascertain their effects on the animal oconimy. Yet nearly all whose attention

has been directed to their investigations have not exercised an accurate discrimination; but most generally have suffered themselves to be deceived and led into error by not confining their observations to the effects induced on the system when in a state of health; but taking as the constant effect the phenomena which have followed their administrations, and which were induced merely in consequence of the accidental pathological condition present. ~~Those~~ remedies that invariably ~~do~~ induce the same effect must of necessity be administered under precisely the same circumstances. From these circumstances we have had many classes formed; as Diaphoretics, Emmenagogues, antispasmodics, &c. which can only, when administered under proper circumstances produce their desired effect, and never; with the unfailing phenomena, that attend the ~~exh~~ exhibition of Emetics cathartics or Diuretics

But of late years that accuracy of observation necessary to success appears to have been adopted by several writers upon this subject. As well as by the present distinguished professor of Materia Medica in this university. And we consequently find many additions and errors of former authors have been discovered, and rejected. And thus the science of Materia Medica has been simplified in a greater degree — When we are told of the number of articles comprising the lists of the Mat. Medi; — their number diversity would seem to set at nought all attempts at classification, and leave us in confusion. But when we are told that all this numerous list may with an exception or two be divided, into those derived from the vegetable and those from the mineral kingdoms. We hence have two grand heads for arrangement. And when we are further told that these articles may be further divided from their

effects, that invariably follow when they are brought in contact with the living animal economy in its healthy state; we again see that we make some progress in our attempts — at arrangement. And here we consider them, under three great distinction viz. vital chemical and mechanical. And by placing them, then under these ~~three~~ heads — the subject is presented in such a form as will materially assist us in our investigation — and if then we take a further step — & subdivide each of these heads we shall find the first viz. the vital has two grand subdivisions — excitants & sedatives — the former composed of articles increasing action generally locally or both — the latter of articles diminishing action — directly or indirectly — The vital agents may be again further arranged into — Excitants proper Tonics anthelmentics astringents Emetics Cathartics Emmenagogues Abortives Diaphoretics Errhine Dialagogues Diuretics Expectorants Sorbefacients

and Emollients — But of these we must consider Emmenagogue Diaphoretics & Expectorants as not possessed of the same invariable power of fulfilling their respective agency. their terms indicate as are possessed by the other & we can only safely account for their modus operandi by their power to subdue the pathological state of the system on which depends the suppression of the Catamenia of Expectoration & that of the cutaneous exhalation whatever that cause may be, giving rise to the suppression of these evacuations the remedies classed under those respective heads can act only in virtue of their excitant secretion or other effects, & in this way only can we account for the diversity we find in these classes - for example, what two remedies act more different on the animal economy than blood letting and Carb ammonia and yet we find them both ranked under the class of diaphoretics

Turning our attention to the class of sedatives, we find also a caption we can not admit but with a like qualification - viz antispasmodics - we pass on & ~~admit~~ as just and proper - sedatives proper Narcotics - Refrigerants Nauseants & demulcents - but the antispasmodics act only in ~~the~~ like manner as the diaphoretics expectorants & emmenagogues have been said to do — such then are the two bilal agents - the chemical are only few - antacids but alkalies ~~and th~~ antilithics & Disinfectants — the mechanical but one viz Diluents - To the student, who is investigating this branch, the correct knowledge of this classification is invaluable and possessed of some correct ideas of their modus operandi he may be said to have mastered the most essential points that can be gained from the study of this branch - we will endeavour to explain the modus operandi as its impression remains upon our mind -

The modus operandi of medicine may be said - to ~~act~~ take place in five different ways 1st 1st. By the direct impression upon the surface to which they are applied as is seen by the action of Astringents - When taken into the stomach or injected into the rectum - in cases of common diarrhoea this is the simplest mode - 2nds by an impression on the nerves of the part to which they are applied - the effect being ~~up~~ extended to another part of the system through the nervous agency this is demonstrated by the emetic effect being produced in children by the application of tobacco leaves steeped in hot water applied to the forehead - Thirdly, They may be conveyed by absorption unde composed into the system such is the action of Rhubarb since it can easily be detected in the urine a short time after it is taken into the stomach - Fourthly They may be decomposed after being taken into the stomach or on entering into the circulation ~~st~~ such

is the case with the nitrate of silver which is decomposed by the Hydro chloric acid it meets & produces its effects —
And Lastly they act by counter irritation or ~~convulsion~~ revulsion as is seen in the effects of Rubefacients blisters &c. —
It may be well in conclusion to say that the successful candidate should not cease from his investigations, in this nor, indeed in any of the other branches of the medical science merely because of his degree but should devote himself to their continued culti vation bearing in mind, Labor vincit omnia — that success can only, thus, attend his efforts —

February 16 1895

An
Inaugural Dissertation.
Submitted to the Examination
of the Provost, Trustees, and Medical
Faculty of the University of Maryland
For the Degree of
Doctor of Medicine
by John Francis Price of
Charles County, Maryland

1835

— 3 —

Having observed that the Theses deposited in the Infirmary are read with avidity by the Students, I will endeavour to make a few remarks (unacceptable as they may be) to those who may subsequently come under the fostership of the University of Maryland.

When I look around upon the various subjects that present themselves to me in making selection of one whereon to build the superstructure of an inaugural dissertation, there appears to be no one of more interest to the student than that of his medical Education:

I do not possess vanity sufficient to flatter myself that any immagination or idea of the humble author of these lines can impart a new principle to the profession, yet the young student brought up comparatively within the precincts of College walls, may occasionally receive a practical suggestion from one utterly unacquainted with sophism and book erudition.

Most parents in these days to whom Fortune has extended the welcome hand

of plenty bring up their children for some one of the learned professions, and not unfrequently a vocation is chosen for master Tyro without once appreciating either his physical or his intellectual capacity. And this is generally done before his mind is sufficiently matured to weigh or to compare things, to make a choice in a matter so important to his future usefulness, prosperity and happiness in life.

A marked absence of physical ability in some individuals must have been noticed by every observer both in the Schools and in the practical work. There is in some a total want of that moral courage and self composure, so essentially necessary in operative Surgery.

The class of the present winter must have witnessed the writhing of some of its members in attending the operations in the theatre of the Infirmary.

I would suggest that those who sicken

at the sight of blood, and recoil from the immaginary ghosts of a dissecting room, are unfit disciples of Aesculapius, and little prepared to enter upon the field of actual practice not knowing at what mo-
ment the life of a fellow man may depend upon their surgical stamina.
These sensiblerie feelings belong to the fair sex, rather than to the man inquisitive of science.
I do not make these remarks with unkind feelings towards any member of the School, well knowing that such misfortunes are for the most part beyond the control of the individual unfortunately possessed of them.
We sometimes meet with students of Medicine possessing a natural mind of no ordinary capacity, but who are placed at the pestle and mortar of some country practitioner, uninstr-
=ucted in the first principles of an education. To such I would say

take the example of the late Professor Smith of Yale College. First of all avail yourselves of the advantages which an Education affords, and then you may with fair hopes and bright prospects resume the road that leads to eminence and distinction in the profession.

But frequently is the question asked by the Student, why all this devotion to the dead languages, to mathematical theorems philosophical experiments, and critical subtleties? In the world no one talks Greek or Latin, nor shall we be called upon to demonstrate the propositions of Euclid. — Be ware, these are the temptations of sloth, the most insidious, persuasive, and dangerous of deceivers.

Remember it is not the design, nor is it within the limits either of a Literary or a Medical institution to teach you all that it behooves

you to learn. Education is not completed in the Schools or Universities. Here are inculcated the general principles of the profession educed from the experience and observation of learned men of the past as well as those of the present age.

To feed your ambition with the delusive hope of arriving at anything more than mediocrity without the ground work of a substantial education will be vain and illusory. There can be no Student who has not been convinced of the increased tardiness with which he has progressed in prosecuting the Study of a profession, in consequence of his inability to translate the Languages from which nearly all the technical words are derived. Having to grovel as it were in the dark over words perfectly incomprehensible and equally discouraging to him.

How different is it with one

possessing a knowledge of the classics, so soon as one of those terms is presented to his view, he immediately traces it back to its root, and has at once a radical and analytical idea of its signification.

In addition to a liberal education, a strong, thinking and discriminating mind is of the highest importance. Yet it is in some cases so trammeled and so much restricted by dogmas and settled notions, that young men are seldom so rash (as it is termed) to venture out of the pale of a certain old woman like practice, imbibed by them at the office of quackery and empiricism.

Indeed there are some so skilled in this, or that mode of prescribing, that they seldom or never call upon their own reasoning faculties to sift and discriminate the principles on which they act; "Finding it easier to prescribe than to think."

When occasionally the labour of research

bring to light an improvement in the pages of medical history, there are some whose narrowness of mind prompts them to look upon every thing of the kind as an innovation upon good old precepts, and unfit to be received into the hands of the healing art.

It is customary generally for a student to read two or three years in an office before attending lectures, but my impression is, he should enter the dissecting room as soon as he has read Osteology, and there remain until he becomes an anatomist. It also appears decidedly better for a student to attend a course of lectures at the onset of his professional pursuit; this gives him an idea of the manner in which Medicine is taught, and he can then read with infinitely more interest as well as with more benefit to himself.

We occasionally meet with some individuals who are more nice than

rise; they will spend an hour or two in handling and commenting upon an anonymous fibre of the human body, or in "plunging the scalpel into intervertebral cartilages," to see how often the elasticity of the part will cast it forth. — This sort of sport may do for children but ill fits a youth aspiring to the road of scientific distinction. — He should endeavour to grasp the great leading features, fundamental truths, and first principles from which others are deduced. After this shall have been accomplished we may with some degree of propriety give attention to anomalisms and freaks of nature.

That there is disparity in the intellect of different individuals, seems now to be pretty generally admitted. But may we not suggest that the chief natural superiority manifested by the favoured few, over their competitors in the intellectual conflict,

is to be found in the facility with which their attention is directed and confined to its proper subject. — A few moments of this concentrated, and vivid attention is worth days and weeks of vague and interrupted reading.

There are certain members of the human family, nay, even of the profession, so vain and light headed, that they think the degree of Doctor of Medicine bestows on them distinctions, and entitles them to the respect of the community. — But the medical gentleman in a land of equal rights and equal privileges, knows that worth and merit make the man, but not of them the fellows

Consequently he cultivates singleness of purpose, with an eye steadfast on Virtue, whose beacon ever leads him to the shrine of her Sanctuary.

As a general rule a favoured few only are calculated to flourish in more than one profession. Let the Warrior sigh for the field of glory, and the

petty politician thirst for bustle and turmoil, let the noisy multitude hang around you to become a candidate for their favour; yet listen not to the Siren song of human flattery, or the fulsome voice of Sycophancy.
"Let moral courage close your ears against the impressions of these sounds" so insidious and fatal to many when first entering upon the theatre of professional life.

When you shall have gone forth "with blushing honours thick upon you"; when you shall have launched your frail bark on the wide world's surface, when the relationship "that now exists between you and the professors shall have been changed, when you shall have ushered from the threshold of your Alma Mater; Remember the perfect gentleman should mark the footsteps of your profession.
Extend to the poor the welcome

tinder of Charity; and be ever mindful that he who giveth can as easily take even that which he hath given and leave you poor indeed.

The Author

This thesis is respectfully presented to the Medical Faculty of the University of Maryland for examination by their obedient servant

Washington Finley

This thesis is respectfully presented to the Medical Faculty of the University of the Maryland for inspection. By their Obedient Servant

Washington Finley

of
E. Shore
Maryland
22nd of February
1885

Intermittent Fever

1

This is a disease that shows itself in almost every part of our country, and notwithstanding its frequent appearance there is perhaps no disease which is less understood, or which, perhaps owing to the many varieties and forms under which it is presented has rendered so often fruitless the attempts of the medical practitioner. It is most generally ushered in by a chill of which the individual is generally made of aware of, by frequently yawning, stretching, and a sense of lassitude and weariness, and aching pains in the loins and hoyles. But owing, as Professor Dunglison, to the powerful action of the cause in weakening the brain and nervous system; a chill is not always present, or if be its action is so slight that it is not perceptible. A chill is generally marked by the patient,

experiencing slight and transient sensations of cold along the back, He has a great disposition to yawn and to change his position. The extremities lose their natural temperature and feel slightly benumbed; his ideas flow with unusual rapidity through his mind; and generally he has a great irritability of temper, or taciturn dullness. The chilliness with more or less rapidity extends itself over the whole surface. The skin assumes a pallid hue and is contracted and rough; the pulse becomes small, contracted, frequent and firm. A trembling now commences, generally at first about the jaws, and then quickly over the whole body. It is sometimes so violent that the patient appears to be in a paroxysm of convulsions, and frequently leaves him in a very exhausted state. The breathing is hurried and

oppressed; and a painful constriction is felt across the breast; there is sometimes great confusion of mind and in some a slight degree of delirium. Vomiting is not unfrequent and is often of a bilious character. The patient suffers extremely in consequence of the very urgent thirst. The duration of this stage is various, but generally lasts two or three hours. Transient flushes of heat pass over the body, the chilliness rapidly subsides and the sense of heat increasing obtains the entire ascendency. This which is called the hot stage, is distinguished by a full and flushed countenance; an extreme hot and dry state of the skin, great thirst and dryness of the fauces; the powers of the mind are greatly excalted; and a full, strong, and frequent pulse. The respiration is much less oppressed than in the former stage, although it is much more irregular than natural. The patient suffers great uneasi

ness about the forehead, and in the back and extremities; a slight delirium not unfrequently occurs as this stage subsides; the urine is discharged in small quantities, and presents a deep coloured appearance without sediment. This continues much longer than former stage, and is finally succeeded by the sweating stage. This stage is manifested by an evident amelioration of all the symptoms. The perspiration generally makes its first appearance about the head and breast, and is gradually diffused over the whole surface. The pulse loses its frequency and hardness but not its fulness. The breathing assumes its natural freeness, the unnatural heat of the body rapidly subsides; the urinary discharge although very high coloured throws down a lateritious sediment. These are followed by a state of convalescence or apyrexia. Although during the intermission there is no febrile symptoms manifest, yet the patient in most cases

feels debilitated with a loss of appetite. yet some do not appear to be affected at all from any inconvenience whatever, but pursue their regular avocations. ~~Intermittents~~
Intermittents occur almost under every variety of complication, but I shall not notice them in every anomalous form. The following which may be called the most common and important varieties, it will be proper and necessary to mention viz: Inflammatory, congestive, gastric, and Malignant intermittents all of which require some variation of treatment. Miasm is looked upon most generally as being the sole cause of intermitting fever; but some authors have noticed, other causes, such as worms, or any cause that gives rise to intestinal irritation; the drying up of ulcers, and suppressed hæmorrhoidal discharges. In reference to the proximate cause and period

icity of intermitting fever, there has been many ingenious conjectures and hypothetical speculations. The location of it in the stomach and intestinal canal is a very favorite opinion of Broussais, and his followers. Others think that the predisposing cause is directed to the brain through the pulmonary nerves, and thence throughout the whole nervous system, partially destroying the whole sympathetic connections.
The treatment of this disease must be noticed under two different heads, that during the paroxysm, and during the intermission. Intermittents of the mildest form and where the patient is otherwise sufficiently strong, it will be unnecessary generally to employ any remedial agent during the paroxysm.
It is proper as the thirst is very urgent in the cold stage that bland and warm drinks should be allowed. But not such as are of a directly stimu

icity of intermitting fever, there has been many ingenious conjectures and hypothetical speculations. The location of it in the stomach and intestinal canal is a very favorite opinion of Broussais, and his followers. Others think that the predisposing cause is directed to the brain through the pulmonary nerves, and thence throughout the whole nervous system, partially destroying the whole sympathetic connections.
The treatment of this disease must be noticed under two different heads, that during the paroxysm, and during the intermission. Intermittents of the mildest form and where the patient is otherwise sufficiently strong, it will be unnecessary generally to employ any remedial agent during the paroxysm.
It is proper as the thirst is very urgent in the cold stage that bland and warm drinks should be allowed. But not such as are of a directly stimu

lating character, nor should he be oppressed by a great quantity of clothing, as is generally the practice, supposing that it lessens the feeling of chillinesS, for it does not appear to have much beneficial influence over the chill, but is very apt to aggravate the succeeding stage. It is however necessary when the patient is weak and debilitated to use stimulants both externally & internally, as the powers of the individual would be inadequate to develope the hot stage. A great many agents have been employed in the cold stage for the purpose of stopping the chill. Emetics have been employed with advantage in many cases at the commencement of the chill. In debilitated individuals, and when the system is much relaxed a full dose of opium if given a short time before the attack will have a very good effect. Many other remedies

have been employed, but within the last few years, the attention of physicians have been drawn to the use of bloodletting as one of the most important indications in the cure of this stage. It is the opinion of Professor Potter, "that if the patient is strong and vigorous in constitution, and complains of pain in the head and back, with a protracted chill, and a struggling pulse, it is as much the duty of the practitioner to employ venesection, as it would be in apoplexy. A check will be put to the chill, you remove the congestion by giving activity to the capillary circulation, and withal the reaction will be much shortened, and rendered lighter." In the hot stage it will be frequently necessary to employ bloodletting as the most efficient means, to lessen the febrile excitement. If the skin be very hot and dry, with a full and vigorous pulse, drinks of

a cool and acidulated character may be employed, in some cases it will be necessary to give refrigerants such as nitre, antimonials, and the saline effervescing draught. Cold water in many cases is an excellent refrigerant. If there be nausea or purging either in the cold or hot stage, it will be advisable to administer opiates. During the sweating stage you may give tepid drinks of a bland character. During the intermission you may expect to have the most decided impression upon the individual labouring under this disease, if you resort to the necessary remedies. If your patient be labouring under the inflammatory modification, it would be necessary to make use of the antiphlogistic means, before using the barks and other stimulating agents. In the malignant and congestive varieties of ague it will be necessary to resort to tonics liberally. The gastric variety, which is indicated by nausea; bilious vomiting, and purging

foul tongue; loss of appetite; pains in the stomach and bowels, purgatives, such as calomel and jalap must be given for the purpose of cleansing the alimentary canal; emetics may sometimes be used with advantage, before the administration of the bark or quinine. Bark and its preparations are the agents which have been most employed in the cure of intermittent fever. With regard to the yellow, pale, or red bark, there is no preference to be given, as they all depend, it would appear for their good effects, upon their active principles, quinine and cinchonine. Many other remedies both from the vegetable and mineral kingdoms, have been employed and many of them are indigenous, the barks of the cornus florida, the Liriodendron tulipifera, Hypocastanum; and the different oaks; and willows; the Virginia snakeroot; colomba; gentian; quassia;. Among the mineral productions, Arsenic, and the sulphate of Zinc are the most efficacious.

Essay on

Peripneumonia Notha.

Submitted to the examination of the Medical Faculty of the University of Maryland.

By Allen Bowie, of Md.

1835

Peripneumonia Notha.

The most general cause of peripneumony is the application of cold to the body, which gives a check to the perspiration and determines a great flow of blood to the lungs. It attacks principally those of a robust constitution and plethoric habit, hence, it is more frequently met with in men than in women, and occurs most frequently in the winter season and spring of the year, but it may arise in either of the other seasons, when there are sudden vicissitudes from heat to cold; other causes, such as violent exertions in singing, speaking or playing on wind instruments, by producing an increased action of the lungs, have been known to occasion peripneumony. Severe exercise, external injuries, a free indulgence in the use of fermented liquors, intemperence, repelled eruptions, suppressed evacuation, and metastasis from other diseases, such as

as gout, rheumatism &c. may also give rise to it. — those who have laboured under a former attack of this complaint, are much predisposed to returns of it. — Peripneumonia appears as a symptomatic affection in several diseases as measles and catarrh. The true peripneumony comes on with an obtuse pain in the chest or side, great difficulty of breathing, particularly in a recumbent position or when lying on the side affected, together with a cough, dryness of the skin, heat, anxiety, flushing of the face and thirst. The pain is prodigiously increased on coughing or making a full inspiration. At the first commencement of the disease, the pulse is usually full, strong, hard and frequent, but in an advanced stage it is commonly weak, soft, and often irregular. In the beginning the cough is frequently dry and without expectoration, but in some cases it is moist from the first and the matter spit up, is various both in colour and consistence, being often streaked with blood, but at which we need not be alarmed. If relief is not afforded in time and the inflammation proceeds with such violence as

to endanger

to endanger suffocation, the vessels of the neck will become turgid and swelled, the face will alter to a purple colour an effusion of blood will take place in the cellular substance of the lungs so as to impede the circulation through that organ, and the patient will soon be deprived of life. Should these violent symptoms not arise and the proper means for carrying off the inflammation have either been neglected or have proved ineffectual, although adopted at an early period of the disease, a suppuration may ensue, which event may happen in a few cases during the first week, but more usually in the second when the disease continues, and is to be known by frequent slight shivering; by an abatement of the pain and sense of fulness in the part; by the patient being able to lie with greatest ease on the side affected; by a remission of the previous febrile symptoms and accession of hectic, and by the respiration being less painful but more oppressed. When the collection of matter has come to maturity, it sometimes bursts into the air vessels and occasions instant death. In some cases it will be spit up, this spitting often

continues long, and the person falls into a state similar to that in Phthisis pulmonalis. Sometimes the collection bursts into the cavity of the thorax and produces empyema. rather a hopeless case. Sometimes lymph is effused into the air vessels which by filling up the cells of the lungs produces suffocation, or being effused into the cavity of the chest, gives rise to Hydrothorax, at others, adhesions to the ribs are formed. When peripneumony proves fatal, it is generally by an effusion of blood or lymph into the cellular texture of the lungs, so as to occasion suffocation; which usually happens between the third and seventh days; but it may likewise prove fatal by terminating either in suppuration or gangrene - the latter, is a very rare occurrence. In those cases where it goes off by resolution, some very evident evacuation always attends it, such as a great flow of urine with a copious sediment, diarrhoea, mild sweats diffused over the whole body, or a hemorrage from the nose, but the evacuations which most frequently terminate the complaint, and which does it with the greatest effect,

is

is a free and copious expectoration of a thick white or yellow mucus, and by this the disease is carried off in the course of twelve or fourteen days, the pulse gradually abating in its frequency, and the heat of the body, with the other febrile symptoms disappearing. Cases of Pneumonia terminating in health without expectoration are very rare. The opinion as to the event is to be drawn from the symptoms which are present. A high degree of fever attended with delirium, much difficulty of breathing, acute pain, a dry cough, or an expectoration of a dark black colour, sudden cessation of pain or of the expectoration followed by a change, or lividness of the lips and of the countenance and sinking or irregularity of the pulse, denote great danger: on the contrary an abatement of the febrile symptoms and of the difficulty of breathing, and pain taking place in the evening, or of a free expectoration, or the happening of any other critical evacuation, such as a hemorragy from ~~the lungs~~ nose, diarrhœa, or a free diaphoresis; the urine at the same time depositing a copious sediment

promised

promised fair for the recovery of the patient. When the inflammation terminates either in suppuration or an effusion of lymph in to the ~~lungs~~ cellular substance of the lungs or cavity of the thorax, it is always to be considered as highly dangerous. On dissection, the lungs usually appear inflamed, and there is often found an extravasation either of blood or of coagulable lymph in their cellular substance. the same appearances likewise present themselves in the cavity of the thorax and within the pericardium. The pleura connected with the lungs, is also in an inflamed state, having its surface every where crowded with red ~~pustules~~ vessels; besides these, abscesses are frequently found in the substance of the lungs, as likewise, tubercles and adhesions to the ribs, are formed. A quantity of purulent matter is often discovered also in the bronchia. -

As in many cases of peripneumony the patient is destroyed in the course of a few days, by the passage of the blood through the lungs being obstructed, effusion may

effusion taking place, hemmorhage of blood ensuing or the inflammation proceeding on rapidly to a suppuration, the antiphlo=gistic plan in its most vigorous extent ought to be adopted on the very first at=tack of the diseased. A quantity of blood proportional to the state of the pulse, the violence of the symptoms and the vigor of the person, (for there is no fixing on the de=finite quantity) should be drawn from the arm, taking care to make the orifice large; and if the difficulty of breathing and pain are not relieved while it flows, the bleeding should be continued until the patient turns pale and seems likely to faint — a copious evacuation is far preferable to repeated small bleedings. If a powerful impression is produced by the abstraction of a large quantity at first, the diseased is suddenly corrected, and will often in the course of a few hours, be con=verted from a most violent pneumonia to a simple catarrh; or if the result is not so fortunate, the symptoms will become infinitely milder and more manageable, and

may even not recur with such violence as to require a repetition of venesection. But the reverse of this picture deserves notice. If bloodletting has been too long deferred, or from timidity in the practitioner or the patient, not largely employed in the first instance, the disease generally proves violent, tedious, untractible, and often fatal. It appears to be a matter of indifference from which arm the blood is taken away, as the operation is resorted to, with the view of removing a stimulus, and not any expectation of causing revulsion. If the pain and difficulty of breathing continue violent, or return after a short interval, which they are very apt to do when the loss of blood is only trifling, the bleeding may be repeated the succeeding, or even the same day, and a proper quantity may again be drawn off, as the practitioner, in repeatedly abstracting blood, is not to be guided by the quantity, or even by the appearance of the blood, but by the relief procured. When the inflammatory disposition is subsued, and the difficulty of breathing and pain are

are not very great, the patient complaining only of a rawness and soreness in the throat, it will not be necessary to have recourse to the operation a second or third time — it is according to the state of the symptoms, the effect produced upon the lungs, and respiration being freely performed, taking into consideration at the same time the appearance which the blood exhibits when cold, the bleeding is to be repeated or not. after expectoration has taken place to any degree, it would be improper to bleed. Where there has been a considerable lapse of time, and the patient is old, or in a weak, debilitated state, instead of repeating V.S. a second or third time, we may apply several leeches, or the scarificator or cupping glass to the chest, immediately over the part which is painful. To diminish the action of the heart and arteries, it has been proposed, in this disease, as well as in pleurisy, to administer the digitalis. In addition to early and copious bleeding, this remedy, may probably have a good effect.

effect - but it ought never to be relied on alone. Where much systematic debility and pulmonic irritation prevail, with frequent coughing, difficult respiration, dry heated skin and a rapid hard pulse - notwithstanding we have bled freely in the early stage of the disease - we may then give the foxglove, either in the form of powder or tincture - about half a grain of the former, or from fifteen to twenty drops of the latter, may be administered every four hours. Inflaming the skin immediately over the part affected with pain, by the application of a large blister, is the next proper step to be adopted after bleeding; and should it shew a disposition to heal up soon, a fresh one ought to be applied in the vicinity of the other, so as to keep up a constant effect; which mode of proceeding will be far preferable to keeping the blistered parts open with any kind of stimulating ointment, as is often practised. Blisters may be used in any stage of the disease; and in many cases in which blood letting cannot be carried far enough

enough, or cannot be employed at all in the peripneumonia notha of old people, they prove very beneficial. Emollient fomentations and cataplasms, are sometimes made use of, but they evidently interfere with the application of a more powerful remedy, as a blister cannot be kept on at the same time that they are employed. If the bowels require evacuation, strong purgatives ought not to be given; but gentle aperients of a cooling nature should be used, particularly at the commencement of the disease. It is a pretty general opinion that purgatives are not proper remedies in pneumonic affections; because, copious and frequent purging has a tendency to diminish expectoration; a point of the highest importance; that drastic ones ought not to be administered, is obvious, but nevertheless, we should not neglect giving those of a mild nature, - such as a solution of the sulphate of magnesia. A free expectoration, being the means which nature most usually adopts for carrying off the inflammation, we ought, therefore, to promote it as much as

as possible, by giving such remedies, as are supposed to have a power of promoting a secretion from the glands of the throat, and bronchiæ, and likewise such as will serve to alleviate the cough, by sheathing the parts against that acrimony of the mucus, which gives rise to it. With the view of assisting expectoration and determining to the surface of the body, we may give antimonials in small nauseating doses, taking care, however, not to excite any vomiting. With these medicines, it will be proper to direct the patient to take frequent small draughts of some mild diluent liquor, such as barley-water or thin gruel - to which may be added a little lemon juice, to give it a pleasing acidity. Nitre and some other neutral salts, will, likewise, produce a good effect in peripneumony, as well as antimonials, and may be, therefore, given. Making use of a pedeluvium every night, will probably be attended with much benefit. - After the expectoration has appeared copiously, we should be cautious in promoting purging; as this as well as

blood-letting,

blood-letting would be likely to check it.- at this period of the disease it will be right, however, to remove costiveness by gentle aperients or an enema. At the commencement of pneumonic inflammation, opiates would evidently prove injurious, by interrupting expectoration. and therefore they should not be prescribed in this stage of the disease; at least, until previous bleeding and blistering, have greatly relieved the difficulty of breathing and pain. In a more advanced stage of peripneumony, where a cough is the only urgent symptom, and proves the chief cause, either of the continuance of the pain, or of the want of sleep, opiates will be highly useful, and may be given with great advantage. During the whole of the complaint, the patient should be confined to bed, lying with his head and shoulders as much elevated as possible; his chamber is to be kept of a proper temperature, neither below 50 nor above 60 degrees of heat, and his strength supported with food of a light, nutritious, nature - such as roasted or boiled apples, or panado; his drink, should be

this

thin gruel and barley water, sweetened with honey, or a decoction of liquorice in which a small quantity of Currant jelly is dissolved, to give it a pleasant taste. On recovering he should carefully guard against any exposure to cold, or any irregularity which might occasion a relapse - for no inflammation, is so apt to recur as the pneumonic - a return of it, might lay the foundation of Phthisis Pulmonalis. - In pneumonia typhoides, the general plan of treatment should be a combination of that of typhus with the local treatment of pneumonia - Bleeding from the system, might prove injurious, unless employed at the onset of the disease. Dry cupping together with fomentation, Cataplasms and rubefacient liniments applied over the part, will be far more advisable, in an advanced stage, the person at the same time throwing in with the breath, watery vapours repeatedly throughout the day and night, by means of an inhaler. When there is a tendency to gangrene and hemorrhage, blisters would be improper, both on account of the evacuation which

which they occasion; and because they some times give rise to dangerous sores. in this species of disease, every thing that might derange the primæ viæ should be guarded against. The presence of noxious matter in these passages, often has, however, a share in producing pneumonia typhoides, and in such cases, clearing the alimentary canal, ought to form an essential part of the treatment; but as the operation of cathartics, would be too debilitating, and it seems very generally admitted that the chief cause of irritation, is in most instances lodged in the stomach, it would appear that an emetic would be the best means of removing it. To avoid exciting purging, instead of vomiting, which would be certain to prove prejudicial, we should prescribe ipecacuanna in preference to antimonials. When the skin is very dry and hot, saline draughts, or the liquor ammoniæ acetatis, may be administered with advantage. To allay pain, ease cough, stop diarrhœa, when it arises, or procure sleep, we employ opium. To support the vital powers and resist the tendency to putrescency, it will be right in all cases of this species of pneumonia, to allow a moderate use of wine, proportioning the quantity to the degree of debility which is present. If the inflammatory symptoms do not run high, and the fever shews

any tendency to remit, we may add a
a decoction of the bark of Cinchona. I
succeeded in removing the Symptoms of
typhoides, and the patient has advanced
State of Convalescence, it will be necessary
have recourse to bitters and aromatics, in order
strengthen the Stomack and System in general. —

An
Inaugural Dissertation
on
Hemorrhoids
Respectfully submitted
to the
Examination of the Provost,
Trustees and Medical Faculty
For the
Degree of Doctor of Medicine
By
George, C. Perry
of Maryland

January 1885

Hæmorrhoids

This disease which I have selected as the subject of my inaugural essay is one of common occurrence and of the most inconvenient and painful diseases with which the human system is affected. though not a little has been written on this subject, yet until recently, the nature of those tumors has been very imperfectly understood, and the treatment frequently improper.

Hæmorrhoids are certain excrescences or tumors seated about the lower part of the rectum.

By systematic writers these tumors have been divided into vascular or varicose & spungy. Relating to the nature of the first kind of hæmorrhoidal tumors, many opinions have been promulgated. Montegre and others think that the sanguine discharge flows neither from arteries nor veins but from the capillary vessels. Duncan, Ledran, Cullen & others say they are formed by the cysts in which the arterial blood is found, Dupuytren, Ebele and many others regard them as dilated veins, or real varices and

such also is our opinion. The second kind Dr Ebenle says arise from a thickened and condensed state of submucous cellular tissue. Abernethy remarks, that such piles as he has seen removed by operations, and those with which he met in the dead body, possessed no vessels of magnitude, and seem to be composed of a merely fleshy substance those tumors must have been of the second kind.

The first variety of hemorrhoidal tumors characterised by the following circumstances. The tumors are of a dark and bluish colour, soft and elastic feel; of various sizes & of a conical shape by gradual pressure with the finger they may be considerably diminished in size, though soon returning to their original size when pressure is removed. They may be internal or external.

The second variety of tumors looks like small fleshy tubercles of a brownish colour. they are situated a little above the verge of the anus, or decend like pendulous excrescences from it; when they are situated externally, they are paler and more elastic

and transparent." The internal tumors differ in no respect from those which are situated externally except when embraced by the sphincter ani, the internal hemorrhoidal tumors are less painful than those which appear exteriorly. the internal piles are surrounded by soft and yielding substances, which do not make any painful pressure on them but when the pile is protruded through the anus and embraced by the gripe of the sphincter ani the pain is very distressing and unless promptly returned into the rectum, the symtoms becomes so much agravated as to resemble in some degree strangulated hernia.

Symtoms.— The occurence of the local hemorrhoidal affection is generally preceded by a sense of weigth and pressure in the abdomen, with a peculiar of uneasiness in the intestines. Hemipelations of the back and loins accompanied with pain, sometimes a numbness of the inferior extremeties, pulse hard and contracted, pale countenance, dryness of the mouth, and occasional sensation of confusion

in the head, vertigo, an irritable and discontented state of the mind, flatulence, and a sensation of pressure from the anus to the perineum and constipation is an almost invariable attendant a frequent desire to urinate and the urine that is discharged is high colored. The patient usually experiences heat, itching and pain, within and around the anus and these symtoms are attended with an abundant serous discharge from the rectum all of which symtoms indicate action or inflammation of the lining membrane of the intstines. These symtoms do not in general continue long they generally disappear for a short time and again return, if the individual is exposed to the exciting causes. If the tumors are of vascular or varicose character they generally continue, in a greater or less degree until they burst and relieve the engorged vessels by the free discharge of blood which takes place and procures immediate relief of all the general symtoms. the discharge of blood occurs when the patient is at stool, this flow of blood sometimes

continues for several days, and has been known to occur daily for months and even years, great quantities of blood is sometimes discharged from these tumors without terminating fatally. If the piles are of the spongy or blind kind we observe at the margin of the anus, and sometimes even within the rectum one or more tumors of a round and shining appearance, of a dark violet colour, with more or less inflammation.

When either kind of hemorrhoidal tumors are inflamed they give rise to extreme pain particularly during the evacuation of the feces. Dr Cheile remarks that when they are situated high up they are often forced down past the sphincter ani and from the irritable condition of the parts and the enlarged and exquisitly tender state of the tumors they cannot again be returned. In this situation they give rise to continued and extreme suffering and the inflammation occasionally runs so high as to cause suppuration and slaughing.

Causes.— The causes of this affection are general and

local. Some of the general causes are merely predis
posing and others are exciting causes of the hemor
rhoidal affections. Persons living in large cities
are more subjects to this malady than those
who reside in the country and those who live
in northern climates are more apt to suffer fro
m the disease than those who reside the equator.
some persons it is said inherit a peculiar —
physical temperament or abnormal condition
of the body which predisposes to the occurence
of this disease middle or advanced life is the period
at which this affection most generally occurs, though
no age is entirely exempt from it. Persons of a san
guino-billious habit are most liable to the af-
fection; but no temperament or constitution
can claim immunity from the disease.
Dr Ebele observes at though pregnancy and the
final cessation of the menses, are well calculated
to favour the occurence of sanguinious congestion
in the vessels of the abdominal viscera, and paitic
ularly of the rectum; yet with the exception of

the periods when these conditions are present hæmorrhoidal affections appear to be much more common in the males than the females." The most common exciting causes are habitual constipation; the passage of hardened feces and sedentary habit; heating food; intemperate use of alcoholic liquors; worms or other foreign and irritating bodies in the rectum; the abuse of drastic purgatives particularly aloetic preparations; stimulating enemata; the weight of the gravid uterus, and the suppression of habitual evacuations, lifting and carrying heavy burdens: riding on a hard troting horse; and indeed any irritant applied on or near the rectum may excite this disease by determining a fluxionary movement to vessels of that part. The maxim "ubi irritatio, ibi fluxus" applies with particular force to the anal regions.

Treatment:- Very discrepant opinions have been expressed with regard to the propriety of interfering with the hemorrhoidal tumors; and

more especially with the sanguineous discharges to which they occasionally give rise. Cullen was of opinion that the disease ought in all instances to be arrested in its progress as soon as possible which he thought could be attempted without any danger; as the disease is very rarely of a constitutional character. Dr. Eberle remarks ~~that~~ "that this view of the subject would inevitably lead to very disasterous consequences, were it generally adopted in practice; for although, hemorrhoids are in many cases, of a purely local character, and in such instances may be removed as soon as convenient, without any detriment to the system; yet both experience and analogy present us with abundant testimony of the dangerous consequences which are liable to result from a hasty interference with the hemorrhoidal disease, when the disease is founded, as it very often is on a constitutional predisposition" although the sudden arrestation of the discharge of the blood from piles may under some circumstances be attended with

unpleasant consequences we think that we should not hesitate to attempt to arrest the bleeding or at least to moderate it when the discharges are so great as to endanger the life of the patient. If an individual is labouring under the symptoms which I have enumerated as preceeding an attack of the affection we should endeavour to prevent any attack by such means as are calculated to remove all irritation and preternatural determination the rectum, and the patient must avoid all the causes which have a tendency to develope the affection such as excess in his exercise and regimen. He should put on a light vegitable diet, the bowels be kept soluble and he should take gentle exercise.

Hemorrhoids are in many cases the effect of a general disorder of the alimentary canal which we must correct before we can hope to cure the local disease. The bleeding pile is the least painful form of the disease, and when the discharge is moderate, little else is required of the

patient except to avoid excess in his exercise and regimen: but if it be profuse and debilitating it is necessary to adopt such means as are best calculated to arrest it; for this purpose we direct the patient to lie on a mattress, to be kept cool, to be restricted to regid diet, and when the patient is plethoric, to be bled from the arm we must make use of cold and astringents applications to the anus thighs and abdomen, cold and astringents injections should be thrown into the rectum. If these means fail we should introduce a tampon into the rectum for the purpose of making pressure on the mouth of the bleeding vessel.
The blind piles as long as they are not inflamed do not give rise to much inconvenience if they are washed with cold water after going to stool and moderate pressure applied by means of T bandage. when they are irritated and painful we should apply soothing applications and the bowels should be kept soluble by mild aperients. When the tumors are much infla

med no astringent application should be used ex
cept poultices made with lead water, the external
use of the narcotics have been recomended by some.
It is important that the patient should remain
in a recumbent posture and if the tumor is constr
icted by the contraction of the sphincter muscle,
an attempt should be made to return them into
the rectum. It is the blind piles for which the sur
geon is most frequently consulted.
If all the means we have enumerated fail and
they continue to give rise to great inconvenience
and distressing pain some operation seems to be
imperiously required.
Caustics, the actual cautery, the ligature and exc
ision, are all used by different surgens in the
removal of these tumors.
Our limits will not allow us to offer the objections
which might be urged to any mode of removing
these tumors when a surgical operation is requi
red except that of excision which we think
is the least hazardous, most prompt, most effect

ual and least painful method of operating. It has now the sanction, indeed of the most authoritative surgeons of the age.

We cannot in this short essay enter into a description of the mode of performing this operation to the systematic works therefore we must refer the reader.

An
Inaugural Dissertation
On the
Atmosphere, in an Etiological
point of view.
Submitted to the examination
Of the
Provost, Trustees, & Medical Faculty
Of the
University of Maryland
For the Degree
Of Doctor of Medicine
By
Theodore Smithcum
Of
Maryland
1835.

The Atmosphere in an Etiological point of view.

The sensible qualities of the atmosphere.

The atmosphere may be either hot or cold. Heat has been universally allowed to be a cause of disease from the earliest dawn of medical science down to the present day. The Greeks looked upon the burning atmosphere as a fruitful source of disease, and these accurate observers of nature have not failed to display its influence. In our own country we have all witnessed its injurious effects at different times. When strangers come to us from a colder country, during our warm weather they are almost always attacked with disease. The mode in which heat acts is very intelligible. It first acts as a stimulus to the system and leaves it depressed and debilitated, and

thus

thus prepares it for the reception of diseases from the slightest cause. The diseases caused by heat are fevers and intestinal affections. — Cold is another prolific source of disease especially when it immediately succeeds heat. It is in this way the cause of the greater part of our diseases. When it is applied to the body for a considerable time, it is a sedative and creates a disposition to diseases of a low type; but when suddenly applied it is a stimulant, and produces derangements of an opposite character. The winter epidemics of the United States may be distinctly traced to cold. —

The Atmosphere may be humid or it may be dry. Much has been said of Humidity as a cause of disease. Some say that it is more injurious than the qualities of the atmosphere that have been already considered. Sudden

transition

transitions from Dryness to Humidity will undoubtedly produce deliterious effects: But an atmosphere which is continually moist is a salubrious one, as is evident from the excellent health which those people enjoy who live in countries where moisture prevails almost incessantly. The Holander who is envelopped in clouds is vigorous, robust and athletic: Whilst the Italian, who lives under a sky of perennial brightness is puny, cadavarous and sickly. Vegitable life requires moisture, and we know also that it is no less essential to the existance and well being of animals. But nevertheless Humidity may operate as a cause of disease under certain circumstances; though we should not ascribe too much to it. Patients with Pulmonary consumption in general shun every thing like moisture

as

as having a tendency to aggravate their complaints. But there is reason for believing that it is sometimes of advantage in this disease: thus Dr Bond, a celebrated Physician, was in the habit of sending his pulmonary patients to places where the air was moist and impregnated with marsh miasmata. And the most happy changes often took place in their systems. And it was remarked, that the most beneficial effects followed an attack of intermittent fever. A celebrated Physician Dr Young of London after thirty years experience recommended this very practice of Dr Bond as superior to all others in the treatment of Pulmonary consumption. Dyspepsia has been insisted upon as a source of disease. There is no doubt but it is in the vast sandy deserts where the atmosphere is nearly deprived of all its moisture, so as to

be

be unfit for respiration. It absorbs the moisture from the mouth and fauces, and produces the most intolerable thirst and pain; as also from the surface of the body, producing a scorching-like Hectic fever. Travellers in the deserts are often obliged to apply wet sponges to their nostrils, that they may inhale vapour to moisten the air which they breathe. We should experience the same effects from sitting in a close room heated by a stove, did we not evaporate a small quantity of water in it, or occasionally throw open the door to admit the moist air from without. In this country what we call a dry air is salutary; But it is because a humid atmosphere is more or less impregnated with miasmata. I have however known the atmosphere as dry as

to

to occasion bad effects. Of late, some diseases have been imputed to a rarified state of the atmosphere. On very high mountains when it is highly rarified, it certainly does produced on the body very curious and injurious effects. —

The Atmosphere in a vitiated condition. The Atmosphere is often contaminated with marsh miasmata or with those exhalations which have been called Koino-miasmata, in contradistinction to Idio-miasmatar, or exhalations from human bodies. Marsh miasma is probably the greatest source of disease in the air. What these pestiferous exhalations are we are still ignorant, the most minute examinations have not been able to detect them. But we know the mode in which they are produced, we know that they are poisonous and

subtile

subtle exhalations from vegetable matter, and we are acquainted with the diseases to which they give rise. It is said that their production requires an atmospheric temperature of eighty degrees Fr. A partial escape of them may take place at a lower degree of temperature. They arise from moist vegetable matter acted upon by heat, and in general from low marshy grounds. Long continued rains do not produce them as they cover the ground, cool the air, and thus prevent their formation. When rains are frequent and heavy, alternating with sunshine, it is observed that the inhabitants of marshy grounds are healthy; whilst those in elevated situations are very generally sickly. The reason of this is obvious; under these

circumstances

circumstances, the high grounds are supplied with proper proportions of heat and moisture to favour the productions of exhalations, whilst the water covers the low grounds, and prevents their escape. Besides favouring the generation of miasmatic effluvia, there are other modes in which rains are hurtful. Thus they wash off the green coats of ponds, which prevented the sun from acting upon the water thus causing noxious exhalations. They bring down miasmata from elevated regions of the atmosphere which had been previously formed and raised; and they sometimes cause cracks or fissures in the dry ground, which allow noxious exhalations to escape from the bowels of the earth. As to the dis=

=tance

distance to which marsh effluvia can be conveyed in sufficient quantities to create disease, much difference of opinion prevails. We have no certainty on the subject; But it is possible they are wafted by the winds to considerable distance, as the diseases of miasmata occur in situations remote from any source of exhalation. Facts prove that they can be carried to the distance of eight or ten miles. But to this effect a current of wind must prevail steadily for some time. It is observed in most parts of the United States, during the summer season, that the Inhabitants of the Northern and Eastern sides of water courses are sickly, whilst on the opposite sides they are free from disease; The cause of this is obvious,

the wind is in general pretty steady from the south and west during the season. It is customary in some places, for the Inhabitants to plant trees on the south and west sides of their habitations, to receive the noxious impregnations from the wind as it comes from the sources of Marsh Effluvia and it is thought to be a successful plan. With regard to the length of time that miasmata may remain in the system without causing disease there is no certainty. Sometimes fever soon follows its introduction and sometimes it lies dormant many weeks, or months. Dr Rush relates some curious cases of its having remained passive among a number of soldiers during the space of a whole year. But no one can believe that the miasma itself lies dormant

in the

in the system. It is the predisposition which is produced which remains in the body, and that is liable to be acted on by any exciting cause. Marsh miasma does not act with the same degree of violence upon all persons; thus strangers in marshy countries are much more apt to take on disease than the old settlers; and indeed some of the latter enjoy a total exemption from its diseases: and further it is in some people absolutely necessary to health. It is a fact that some old persons removed from their marshes into a pure atmosphere, will languish with disease. This is agreeable to analogy as well as to authority. After having been long habituated to miasma, it is probable that the

system requires this stimulus in the same manner that opium and ardent spirits are necessary to those, who have been long accustomed to their use. The operation of miasma is very wide and invades every section of the system, it is no doubt therefore the cause of numerous diseases, It is well known that all Bilious fevers, whether Intermittent, remittent or continued, are referred to this source To them we may add Cholera, Dysentery, Diarrhoea, Chronic affections of the Liver, Spleen &c. and probably cutaneous affections, especially in warm climates, may be referred to this cause. But are we warranted in ascribing so many diseases to one single cause? To this I cannot give a satisfactory

answer

answer. But I believe that in the progress of putrefaction, there may exist many gradations of strength in noxious exhalations, giving rise to various diseases; Thus to the first gradation we may refer Intermittent fevers, to the second remittent and continued fevers and to the third or most concentrated species malignant and Pestilential fevers. In the whole of Pathology, there is no circumstance so striking as that of the single cause of most miasmata producing such a variety of diseases.— As to the manner in which these exhalations act on the body so as to produce disease, we can give no satisfactory explanation.—

The atmosphere may be contaminated with Idio-miasmata. They differ

differ from Koino-miasmata in being exhaled from the human body. They are generated from all the secretions and excretions in a putrid state; but the most abundant source is the perspiration. The linen to which the perspiration adheres, has sometimes given rise to disease in women who washed them. Its diseases are low typhus and weak Dysentery &c. Another difference between human and marsh miasma is that the former never impregnates the atmosphere for more than a few feet from its source. Experiments have proved that they do not contaminate the air at a greater distance than a few feet. But they adhere for many months to clothes, brick

and

and stone walls. for which reason, people should not let their soiled linen remain long in their dwell-ling houses and they should white wash the walls of chambers in which sick persons have been confined. They never adhere to ground floors, and this is an im-portant fact in the construction of military camps &c. They act more rapidly in cold than in warm weather, in producing dis-ease. This is noticed in jails, and military hospitals, and the rea-son is obvious: During the sum-mer season the doors and win-dows are thrown open and al-low a current of air to carry them off; whilst in cold wea-ther they are confined, and become accumulated and concentrated.—

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An

Inaugural Dissertation

on

Delirium Tremens

Respectfully Submitted

to

The Examination

of the

Provost Trustees

and

Medical Faculty

of the

University of Maryland

for the

Degree of Doctor of Medicine

By

Daniel G Reedy

of Maryland.

January 1835.

To

E. Geddings M. D.

Professor of Anatomy and Physiology

in the

University of Maryland

Whose great skill and extensive knowledge in the various departments of the Medical Sciences, add lustre to the profession, and whose integrity of principle and private virtues are not less distinguished than his professional attainments, the following short essay is dedicated as a testimony of the esteem, the gratitude and respectful attachment of his obliged friend and pupil,

D. G. Reedy

Introduction.

In selecting a subject for a dissertation some considerable difficulty presented. The great variety of diseases which are interesting to medical practitioners have already attracted the attention, and exhausted the ingenuity of medical writers of the greatest note; and whose descriptions and modes of practice the most tyro in the sciences cannot flatter himself with the hope of making any improvement. As we have not had the opportunity of instituting a series of experiments or making any personal observations, it cannot be expected that we should offer anything new or original on the disease upon which we propose to write. It is well known that we, who have not had the advantage of experience and the opportunity of making personal observations, must obtain our knowledge of the medical sciences by reading and reflecting.

The students facilities for obtaining a correct knowledge of the medical sciences has been much improved since the day of wild theories and vague speculations has passed, and given place to firm, feasible, and solid positions deduced from observation and exa-

tained not only by the attendant phenomena and therapeutic regimen, but demonstrated by autopsic examination. The contributions to the accumulating mass of medical lore have not only been more extensive, but more important and valuable to the physician and student, since the present mode of investigation has been adopted.

The author is well aware that many imperfections, and verbal errors may be discovered in this short essay, by the criticising reader; but he throws himself on the mercy of the critic and of the reader, with a just confidence that they will make allowance for his juvenility and for the circumstances under which this, his first essay, was composed.

Delirium Tremens.

The subject of delirium tremens has within the present century attracted much attention from medical writers; much has recently been said and written on the subject, and great difference of opinion has prevailed, and still prevails, among different writers as to its pathology and proper method of cure. Whole some have considered it as a nervous disease, others have regarded it as an inflammatory affection, each class adapting their remedial agents to the particular system, that was ~~they have~~ supposed to be the seat of the disease.

The history of this variety of mental affection is short. Previous to the commencement of the present century, it was confounded with mania from other causes, and was not known as a distinct affection. Dr. Pearson, of Newcastle has the honour of publishing the first distinct account of this form of cerebral disease: this he did ~~in~~ about the year 1801; it was subsequently described by Dr. Sutton. Since then it appears to have arrested the attention, and interested the feelings of numerous writers who have variously described it.

Within the last few years our medical journals have been teeming with essays on this subject.

Different appellations have been assigned to the disease by different writers. "Delirium tremens" is the appellation given to it by Dr Sutton. By Dr Armstrong it is called "Brain fever." Dr Blake proposes as the most appropriate, the title of "Erethismus Ebriositatis." By others it has been denominated mania à potu, mania temulentia, febris temulentia, &c. The distinguished Broussais, whose opinions are entitled to the highest respect, has taken occasion in one of his works to affirm, that this is a new disease invented by the English. He regards it, as he does all other diseases, as a gastro-enteritis and thinks it should be so called.

Without occupying time, in noticing the reasons on which these different names are founded, or discussing their respective merits; we shall pass this part of the subject by; preferring ourselves, to adopt the name given it by Dr Sutton, which appears to have been generally sanctioned. By delirium tremens we mean the temulence, delirium, and the accompanying symptoms with which individuals who indulge excessively in the use of ardent spirits are occasionally attacked.

Symptoms.— The first distinct indications of this disease are usually the following: lassitude; a feeling of oppression in the epigastrium; loathing of food; nausea and occasionally vomiting; giddiness; an uneasiness and sense of confusion in the head. The countenance is generally of a leaden hue; frequently flushed, with indications of great anxiety. The skin is sometimes warm and dry, but usually cool and damp, and occasionally covered with profuse perspiration. The bowels are generally open, but sometimes constipated; nervous tremors of the hands and tongue, the latter being moist, and but slightly furred. In the latter stages of the disease, the tongue sometimes becomes very dry and chapped. These premonitory symptoms are succeeded after a time, varying according to the state of the constitution and previous habits of the patients, by the following: watchfulness; an expression of alarm and suspicion by the countenance; a wildness and quickness of the look; the eyes are strust about with quick and scrutinizing glances; the patient becomes irritable, very restless, and sometimes irascible;

he is walking to and fro continually, has no disposition to lie down and frequently he can not be persuaded to go to bed; if prevailed on to lie down, he is deprived of the restoring solace of "balmy sleep", and is harassed by obstinate pervigilium. The state of the intellectual functions vary very much; patients who are robust, are occasionally very violent, rendering it necessary in some instances, to subject them to restraint; but those who are more advanced in years and have long been victims to excesses, are very easily managed. A patient labouring under this form of derangement, is in a state of perpetual excitement, laughing and talking by turns incessantly. Frequently contends that he is well and is confined on account of some sinister intentions ~~against~~ towards him, and begs to be liberated and permitted to pursue his usual occupation. During this wonderful derangement of the faculty of perception, he is terrified and alarmed with a succession of various alarming, disgusting, and ludicrous apparitions. The objects of delusion vary very much. Sometimes patients are annoyed by cats and mice; frequently by snakes; occasionally they imagine

the devil has presented himself, and claimed them as his property. Sometimes he fancies that some persons design to rob, kill, or annoy him. The patient's mind and body are continued in a state of action; generally he is intent upon some imaginary employment. If he be contradicted in any of his phantasies, he adheres to them very pertinaciously, and becomes much enraged; but if he be dealt with kindly and soothingly, and his attention gained, he will generally reply to questions very correctly.

The pulse, I should have remarked before, is commonly full, but compressible and not very frequent. In old dementeards, the pulse is small and undulating, and as the disease advances to a fatal termination, it becomes weaker and more frequent.

Pathology.— In order to arrive at any definite ideas on this subject, it will be necessary to inquire into the causes of this affection, and their mode of action on the system. It is admitted by all who have written well, on this disease that the habitual use of diffusible stimuli, but more especially of ardent spirits, are the predisposing causes. Great however is the dependence of

opinion that seems to exist with regard to their mode of action in the production of this disease. Some contemporary opinions are entitled to much respect, affirm that this disease is the result not of the use, but of the sudden intermission of the use of these articles. Others, whose opinions are entitled to no less respect, contend that it may be the result of excess as well as of a count of the customary stimulus (Hotles, Ware) Numerous well authenticated cases have been recorded to form the conclusion of the latter opinion, to which we can not hesitate to give credence. The most common immediate cause of the disease appears to us to be in general the sudden cessation of the application of accustomed stimulus, through the medium of the digestive organs, to the nervous system.

The opinions that have been advanced concerning ~~con~~ concerning the pathology of the disease are extremely various, and contradictory; so much so indeed that ~~it~~ is almost impossible for us to come to any conclusion as to what is the correct pathology.

hasmach as our limits will not permit us to enter into an examination of all the doctrines that have been entertained on this subject; we must content ourselves with making a few allusions to the theories that attract most attention, and are most generally received. Dr Eberle says the disease would seem to consist in a purely dynamic disorder — a morbid activity of the brain; from the sudden abstraction of an habitual stimulus by which its excitability had long been repressed or blunted.
Dr Coats in a very elaborate essay published in the North American Medical & Surgical Journal considers it as consisting in a heightened activity of the sensorium from the generation, as it would seem, of an inordinate degree of vital activity in the brain. The celebrated Broussais maintains that a gastritis constitutes the primary and essential pathological condition in this disease. That traces of inflammation of the mucous membrane of the stomach are almost invariably detected on post mortem examinations is generally admitted. But that this condition constitutes the proximate cause is still a

marked point. Those who oppose the gastric pathology, maintain that the gastritis supervenes during the progress of the disease; and is not primary. It may be observed that although inflammation of the stomach, is a very common affection in this malady, and in cases of a fatal tendency, perhaps very rarely absent, it is improbable that it always constitutes the primary and essential pathological condition of the disease; and cannot therefore, be regarded as its proximate cause. Such inflammation occur most probably in the course of the disease, and should be regarded as one among the ordinary consequences of the disease. The importance of attending to this condition of the stomach, in a practical point of view, is by no means lessened by the supposition of its being consecutive; for whether primary or secondary, its reduction or removal must constitute a very essential part of the remedial treatment.

As the result of all our reading and reflections, we would say, that the disease consisted essentially in a morbid excitement of the brain, as is exemplified in the increased activity of its functions,

with a depression of those of organic life. Should the patient after having long indulged in the excessive use of ardent spirits break off suddenly, and abstain altogether from his accustomed stimuli, the abrupt withdrawal of so much excitement, would weaken very much all the general action of the system, producing very considerable exhaustion; but in every exhaustion depression, nature makes an effort to react, so that shortly, there is developed preternatural action, particularly in the brain — We say as Dr Blake has said that in consequence of the sudden cessation, of the application of accustomed stimuli, the nervous power gradually sinks to the lowest ebb; and in endeavouring to rally and re-establish the last equilibrium between it and the vascular system, its efforts exceed the exhausted resources of the sensorium, the consequence of which is delirium, &c. When the disease results from excessive stimulation, it is perhaps always dependent on a gastritis. The manner in which this excess of stimulation operates in developing the characteristic symptoms of the disease we will not attempt to explain.

treatment. If it be true that the characteristic symptoms of the disease may arise from two different causes, our mode of treatment must of course be diversified according to the nature of the immediate cause and symptoms in general. To treat every case alike, regardless of its nature would be a manifest departure from sound practice; and a part of a system not yet exploded, — the system of prescribing for names and not for things. We should always pause and consider the nature of the case, before we adopt a plan of treatment, so that it may be consistent with sound pathology.

When an individual is attacked with the disease in consequence of a want of his customary stimulus, we are led a priori to infer that the exhibition of stimulants will be productive of benefit; but is this mode of treatment proper or admissible when it arises from excessive stimulation? — Certainly not. Dr Stokes avers that he has never seen a case of excessive stimulation benefitted by the stimulating treatment, nay more, he has seen many patients, who had been treated in this way, die with symptoms of inflammma=

=tion of the brain or stomach. In this variety, opium is the remedium magnum; but it should always be employed with extreme caution, not be had recourse to exclusively, without any regard to the existing state of the constitution. In the employment of such potent agents, there should be great caution and vigilance. In cases of simple mania, with great coolness of the surface, with soft pulse, unaccompanied by any internal heat of the head, we would rely on opium. It is not often, we think, that such cases occur. When the delirium is complicated with symptoms of gastritis or inflammation of the brain the use of opium should always be preceded by the employment of such means, as are calculated to subdue or remove those affections. If we reduce the active state of the system and diminish the immediate determination to the head, by general and local depletion, and revulsion to the abdominal viscera by means of active cathartics, together with free use of cold to the head; the employment of opium, will no doubt be followed

by the happiest effects, in calming the excitement and producing sleep. The quantity of opium which is required, varies according to the condition of the patient. When the disease is fully developed, and the system in a proper condition to bear it, it is necessary to begin with six grains, and repeat it in an hour; and then suspend it. When given in this decided manner, a very powerful impression is produced, and often the patient will fall asleep in a few hours (Carter.) Some practitioners recommend it to be given in two or three grain doses, every hour or two, until sound sleep is procured. Dr. Jackson of Northumberland, says that we cannot cure this disease in its worst forms without giving from ten to fifteen grains of opium every two hours, till long-continued sleep be induced. Dr. Wright of Baltimore says that his experience leads him decidedly to prefer half-grain doses of opium, or an equivalent in Laudanum, repeated every half hour.

Blood letting. — Great difference of opinion exists among practitioners with regard to the propriety of blood-letting in this affection; not so much however concerning the propriety of local as general blood-letting: few individuals indeed at the present day will deny the salutary influence of cups and leeches in the treatment of this malady. We should be guided in the employment of this agent as well as of all other remedies by the indications, and not throw aside all our usual principles of action and abandon ourselves to a blind and exclusive system of routine as is too frequently the case, we think, with practitioners in the treatment of this most formidable disease.

When the disease results from the want of the customary stimulus and occurs as it generally does in persons whose constitutions have been wrecked, or very much shattered, the system exhausted by want of sustenance for several days, Venesection is rarely, if ever demanded. The employment of it in such cases would certainly be attended with the most serious consequences. But when the diseases arises from excessive stimulation

and attended, as this variety always is, with symptoms of inflammation of the mucous membrane of the stomach, pulse possessing more than ordinary force, with great determination to the brain we should not hesitate to abstract blood freely. When the general strength will not bear venesection and there is too much activity of the vascular system for the successful employment of opium in any case, the application of cups, or leeches to the epigastrium, and to the temples or behind the ears is of the greatest importance. In fact we think there are but few cases in which local bleeding is unattended with benefit; for as we have already said that if there are not symptoms of gastritis in the inception of both varieties they almost always supervene.

Emetics.— This class of remedial agents has been highly recommended for the cure of this affection by numerous and respectable writers; whilst others no less respectable have proscribed them altogether. Dr Klapp has advocated their use very enthusiastically and seems to have almost depended upon them exclusively. It appears to us that there are not many cases in which they are indicated

and that no cases occur in which we would be justifiable in depending exclusively on them. If morbid and irritating accumulations exist in the stomach, the utility of premising an emetic to the use of opium is very evident but they should always be employed with extreme caution. In some instances it is extremely difficult to excite emesis. Dr Klapp says he gave one of his patients 20 grains of tartar emetic before it excited free vomiting.

Cathartics.— In regard to the use of cathartics in this disease Professor Potter observes that "although the necessity of a soluble state of the intestines is obvious in almost every condition of fever, it would appear from repeated observation, that cathartics are not to be ranked among the radical means in the treatment of the fever, (delirium tremens) and indeed they are but feeble auxiliaries, except in such cases as are attended with, and fomented by, some vitiated secretion". Dr Eberle remarks that "it has appeared to him that without administering one or two mild purgatives preparatory to the employment of opium the free use of this article has a tendency in some instances to give rise to dangerous determinations to the head, and to

bring on coma instead of healthy sleep; and similar views on this subject have been expressed by numerous other writers. Although "cathartics are not to be numbered among the radical means in the treatment of the malady" they certainly are of considerable utility when vitiated secretions exist in the bowels. And in those cases, where active determinations to the head exist and not much gastric irritation, there is perhaps nothing more useful, in subduing the inordinate action, by revulsion to the abdominal viscera. When much gastric irritation exists calomel should be employed to evacuate the bowels and also to effect revulsion.

Warm and Cold applications.— The warm bath has been highly recommended by Dr. J. H. Wright of Baltimore as an agent for restoring the equilibrium of the mind. If we take into consideration, that the warm bath generally has a soothing influence, and is well calculated to calm irritation, we may well conceive how it may exert a salutary influence in this disease. Tepid affusions were employed by Dr. Armstrong with much benefit. Cold affusion also, was employed we are told by Dr. Armstrong with decided advantage.

If the patient is very wild, with great heat of surface, & action in the head, the dashing of cold water over the head if the constitution has strength to react, may be very effectual in diminishing cerebral action, and equalizing the excitement of the system. The extremities should at the same time be stimulated by means of the aspirants Ardent Spirits. — We are constrained to coincide with in opinion with Dr Eberle, in regard to the use of Ardent Spirits in this disease; that there are not many instances where it is absolutely necessary, and that opium will in general, do all that can be effected by remedies of this kind.

Before we conclude this imperfect essay, it remains for us to return our most grateful thanks to the illustrious professors of the medical department of this university, for the permanent advantages which we have derived from their truly valuable lectures, and for the polite attention which they have individually manifested towards us. That they may long continue to exercise the duties attached to their respective departments, with the same reputation that has heretofore characterized their labours, is the fervent wish of their obliged and grateful Pupil.

An Inaugural Dissertation upon Cholera Maligna

Respectfully submitted to the Provost The Trustees and the Medical Faculty of the University of Maryland

for the

Degree of Doctor of Medicine

by

John Pearson Smith

of

Columbia South Carolina

1835

Cholera Maligna

The subject of my thesis is a disease upon which millions of valuable lives depend, a disease that has carried in its train death and desolation, spreading dismay and horror in almost every part of the habitable globe; exciting the most unpleasent and appaling feelings the mind can well conceive of: and this not confined alone to individuals unacquainted with the science of Medicine, but terrifying those, who above all others, should be calm serene and deliberate in all that he does in cases of emergencies -- Yet how true it is, upon the first appearances of any new (or at least new to them) disease the mind of the Physician is disconcerted, as well as the mind of those who are uninstructed in Medicine: whether this follows as a matter of course I dont pretend to say

however true the observation may be, it is not at all applicable, to the Physicians at present, in regard to the Cholera Malignant; for in this, as well as in other countries, where the Cholera has spread its devastations, they have had line upon line and precept upon precept, and if they err it is in judgement or for the want of proper tact, or! what is even worse for the want of an attentive examination of the disease as it presents itself.

But these remarks can only apply to Physicians who have lived in places where the Cholera has made its appearances.

Malignant Cholera, is a disease that can be reduced to writing, and should e'er this, have called forth the energies of men fully able and competent to give the subject a proper investigation, and to throw upon it

that useful and practical light so much needed; notwithstanding the importance of this investigation, it has been in some measure neglected. The want of facts occasioned by this neglect I. by no means dare presume to supply and if I did, my inability would be a sufficient barrier.

It has been said by individuals who really ought to have known better, that the disease is involved in so much obscurity, that there is no possibility of gaining any knowledge that could be reduced to useful practice. This, and like ideas have done much harm in retarding or paralizing, the energies of those disposed to give a proper examination, and is the case, not only in the present disease, but in many others to which the human family are equally liable, the pathology of which are

are now well understood, and of course a proper mode of treatment adopted. This knowledge of the morbid condition under which the system labours, was not obtained by implicit reliance upon the idea there was nothing to be learned in reference to it. What would be the condition of the world, if the disciples of medicine were to let their energies slumber whilst such gloomy foreboding clouds were gathering over them? Would it not present to every eye a scene truly deplorable! One that would put at defiance every attempt at delineation. Happily however, we are not so unpleasantly situated, though our resources are truly limited; quite enough, upon subjects of this kind.

Asphyxia and spasmodica have been used by some Physicians to dispignate Malignant Cholera, however these terms are not very appropiate as applied to Cholera; they are often absent and indeed never present only as symptoms. and ought only to be used to dispignate the different stages of the disease, which is generally marked, by premonitory, spasmodic, and a collapse state

The primary cause of the disease perhaps is not fully known, by some it has been refered to the decomposition of animal, and vegitable substances; by others to a specific contagion; again it has been refered, (and perhaps with more propriety) to the existence of a peculiarily of epidemic influence in the Constitution of the Air

*In 1775 the influenza was the prevailing disease in America and Europe

Noah Webster in his work on pestilential and epidemical diseases published in 1799 refers it to ~~certain~~ electric influencies, occuring in certain series, detiliorating the Atmosphere &c He say the near approach of Comets the eruption of Volcanoes, and any unusual phenomenon, generally proceed epidemics &c By producing certain changes in the Electric fluid, - This doctrine, in regard to epidemics generally, is not altogether without foundation. The following facts that the "influenza of 1708 was preceeded by a meteor or fiery globe The measles in America in 1758 was preceeded by a meteor. In 1771 a meteor and then commenced the measles and influenza. In 1775 a meteor, and then the Cynanche Malignand prevailed*. In 1783 two meteors and then commenced the Scarlatina

Scarlatina anginos; In 1788 another meteor and immediately began the measles". These facts seem to be of more importance than we are willing to admit - He farther remarks "If these coincidences are all the mere work of chance, they are certainly very singular kind of accidents". And is it not very likely, similar occurances since 1788 - in regular succession might have been noticed, even to the present day - Previous to the appearance of the cholera in Baltimore 1832 there was a remarkable change in the atmosphere, assuming a peculiar dirty yellowish appearance, this was not perceptible to the naked eye until the 14th July when it was preceived by many persons - Another fact that seems to corroborate the doctrine of Electric influence is during the progress of the Cholera 1832 in Baltimore

* Lord Potter says that this new combinati
is a poison

no thunder or lightning was apparent during the whole time of its prevalence, the atmosphere was heavy respiration, very difficult, the mind depressed, no disposition, to perform the usual avocations of life, an apparent indifference, to those around us. This state of things, does not exist long before the actual appearance of the epidemic. Previous to its appearence, its influence is very manifest, by the change of the air, the new combinations formed therein* exerting its mobific principal, upon the animal kingdom, until it becomes fully developed — its baneful effects are not confined to the mamillæ tribe, but all the animal kingdom, are more or less affected, horses, cows, hogs dogs, and fowls have died under its influence, the numerious and

and great varieties of small birds that frequented the yards and gardens, left the city on the first day of Cholera, and those that were confined in cages ceased to chirp during the whole time of its prevalence — If this existing condition of the atmosphere was the cause of the Malignant Cholera; may it not be asked; why every person was not affected at the same time? was not this peculiar epidemic influence, in the constitution of the air surrounding thousands that escaped? This may be answered in the affirmative; nevertheless this predisposition or tendency, was in a great measure modified by a proper attention to the principles of Hygiene — It is evident that this tendency did exist from the following facts

mentioned by Prof: Potter, every person that was bled during the time of Cholera wether sick or not, presented blood simular in every respect; their tongues also was very much alike. The degree of intensity depends upon the violence of the cause, which acts upon the system like a poison: this seems to fall heavier on some places than others, especially where there is a number of persons crowded together in a cholorine atmosphere, their viscious breath &c &c can but increase the disposition.

In 1830 it was noticed that there was a great disposition to inflammatory diseases - Gastric irritation Diarrhea &c &c differing in many important points in there usual pathology and of course requiring a differant mode of treatment - In the Winter of 1831 Catarrh, Bronchitis, Pnumonia etc were attended with inflammation of

of the bowels; indeed in every disease there was a remarkable tendency, to terminate in Cholera

The pathology of this disease perhaps we know something more about than we do of its direct, or indirect causes, the sympathetic system seems to be primarly affected, the functions of the liver are interrupted, the bilious secretions are suspended, great inward congestion, gastritis, enteritis &c &c indeed it presents to the Physician, some new form or modification, in every individual case, it is generally preceeded by a fulness of the head &c. during its existance many persons experiance, considerable difficulty to keep awake through the day, nevertheless when night approaches, they are watchful and get to sleep they cannot but doze away the night in unpleasent dreams

pain in the region of the stomach generally precede the attack for two or three days. its progress is hastened by immoderate indulgences at the table, eating of different articles of diet, overwatching, great anxiety changes in diathesis, change in water, fear, grief, sorrow & indulging in excesses of any kind. all tend to bring on the disease: the rice water or albuminious evacuations now appear; the bilious secretions are suspended when this obtains there is generally a disposition to spasms.

In all who breathe the infected atmosphere present alike, white tongue discoloured, as if by a mixture of tin and ashes, dove coloured &c and it is always moist. which passes off with the cholera or Choleraic symptoms, the blood is black, resembling in appearance a mixture

of soot and water, which is not easily coagulated, has very much the appearance of Molasses &c. some express their indisposition by a pain in the breast, a sense of sinking &c finally the skin is of a bluish hue, becomes quite relaxed, looks old and dead and when it is caught between the fingers it will hang loosely over the cellular membrane, this leaden hue may be referred to venious congestion, the arterial blood retains its florridity

As above mentioned, the degree of disease depends, upon the violence of the cause, the change of the secretions &c &c – our indications of cure is to change the secretions, remove the congestion of the deep seated vessels &c. all external stimulants are unnecessary as they are of no use whatever When the skin is blue and feels hot to another and yet feels cold to

him and with it a desire for cold drinks let him have it. When the tongue is red, rough and like a piece of raw beef, it is always connected with great congestion. The pulse are not frequent, unless there is spasm, then, they are so frequent that they can not be counted - perspiration can not not be induced by the application of any remedy in the class of stimulants, Calomel and the lancet seem to be the Sampsons in this disease, the Proto-Chloride Hydr: should be given until the gums are sensibly affected; persons in collapse have recovered by this mode of treatment, if there is any perceptible pulse or any pain bleed; and if not with success, the want of success will depend upon a want of vitality to act upon, the most

but the bad ones, and these ought not to be abandon'd too speedily, we should disregard all fear of the disease, cautious in diet, eat but little, all acids, fruits, cabbages sweet potatoes, lattice — Pork, poultry, fresh fish. Oysters, crabs &c Corn bread puddings, pastries &c should not be made use of — it would be well to apply a strengthening plaster over the region of the stomach during the existance of the disease, all stimulating drinks should be dispensed with for the time being, the practice of taking purgatives to prevent the disease is dangerious, especially so, when the neutral salts are taken — Cathartic have been too highly estimated in the treatment of this disease, however in the onset of mild cases Emetic Cathartic, are valuable remedies and

remove the congestion — aperients are often very benificial, when used after Calomel ... Emetics are useful in the forming stage of the disease, and this is the only stage in which emetics are admissible if given at this stage they very frequently cut short the attack — The antimonials, Sulph: Ferr: and the Sulps: Cupri: are objectionable, we should therefore select with judgement our emetics remedies — the best of which are the Chloride of Sodium and water or Pulv: Ipecac:

Blood letting is more benificial in some cases than others but when judiciously used is one of the most valuable remedies in our possesion — When the pulse are frequent, full, and tense or slow and full, venesection will accomplish much in its cure by removing the congestion

a white tongue, hard, frequent and distinct pulse always indicate venisection - even in the depressed or collapse state of the disease, when there is a tense pulse we should never hesitate to bleed the patient and to follow it up by Calomel with a view to its specific effect - if this effect is produced (salivation) the patient will recover attention should be paid to the evacuations, which take place after the collapse state - here we must lay aside mercury and rely upon bloodletting which is our principal means of cure. In that stage of the disease which is merely diarrhea, if we fail with the Prolo: Chlo: Hydr: and Opium & bloodletting followed with Calomel will generally produce the desired effect; however the Opium should never be given in Diarrhea when there is fever.

* if after the removal of the leeches, the cup were applied immediately over the part, it would I have no doubt answer a much better purpose than a simple scarifying of the parts; the impression produced in this way would (I think) be far more advantages than the loss of an equal quan of blood by bleeding from the arm

In regard to the manner in which depletion should be performed there ~~has~~ is some discrepancy of opinion Dr Potter says local depletions are inefficient in this disease, he say when blood is drawn by leeches or by the cup the heart and arteries always accommodate themselves to the loss.* but when drawn from a large vessel it makes a decided impression upon the circulatory system and in this consist its remediate efficacy — There has also been much discrepancy of opinion in regard to the quantity of Calomel given as a close, in this affection — by some small close from 1 to 2 grs have been recommended as alteratives but Dr. Potter says there ~~never~~ never was a case of violent cholera cured by this practice 'he says' when the condition of the stomach is such, that there is violent purging

purging and emesis of rice water, congestion of the vessels and inflammation, small doses of Calomel can do no good, but from 20 to 30 grs should be given — The deeper the congestion, the larger the dose ought to be; when it is approaching the collapse stage from 30 to 40 gr of Calomel should be given, here blisters are useful and only here

De Morbis venereis

Dissertatio inauguralis

a

Mario Ahlenfeld

Prussiano

Baltimorae

M. D. CCCXXV.

Examined & approved.
C. Redington

Geschichte der Syphilis

Schon im fünften Jahrhundert beschrieben die griechischen und romischen Schriftsteller die Venerischen, den Bubo etc. Krankheiten die in den allermeisten Fällen syphilitischen Ursprungs sind.

Die Fälle waren aber so selten und so gutartig, daß man es fast für überflüssig ansah, ihr besondere Aufmerksamkeit zu weihen; und sie daher nur mit flüchtigen Worten abgehandelt findet. Bis sie endlich zu Ende des vierzehnten Jahrhunderts in Europa mit solcher ansteckenden und verheerenden Kraft auftrat, daß man sie sehr lange als eine der furchtbarsten und wichtigsten Krankheit betrachtete, bis sie in der neuern Zeit wiederum gelinde zu werden beginnt.

Ursprung der Syphilis.

In Amerika war sie schon lange Zeit vor Columbus Ankunft, als eine alte Krankheit bekannt.
Obsie aber wirklich von da nach Europa verschleppt wurde, und folglich die in den ältesten Schriften dergleichen genannten Krankheiten keine venerische waren, ist ungewiß.
Schweiger ist der Meinung, daß die Krankheit von jeher auf der ganzen Erdoberfläche geherrscht habe, und nur unter einer andern Gestalt.

Allgemeiner Charakter der Syphilis.

ie entsteht von einem ganz eigenthümlich
n, specifischen Gifte, welches sich durch
reinen Beischlaf, oder durch Application
verwundete, von der Epidermis entblößten
ste, durch die Einsaugungswege dem
örper mittheilt, sich in der Lymphe repro-
ciirt, und sich durch Entzündung, geschwür-
ichen, geschwülste und after-Organisatio-
en, äußert.
s ist aber meiner Ansicht gemäß nicht er-
nderlich, daß die das Gift aufnehmende Stelle
n der Epidermis ganz entblößt sey, sondern wenn
er dieselbe durch mechanische oder chemische Wirk-
ung so beleidigt ist, daß sie sich dadurch in ein-
em Zustande der Irritation befindet: woher
denn zu erklären ist, warum das Gift
ift nur durch die Harnröhre, Mutterscheide,
Mastdarm, den Mund mittelst Tabakspfeif-
e und Conjunctiva dem Menschen zugeführt
erde; indem die Schleimhaut der Urogenital-
chen System durch den Harn immer in einem

gelind reizenden Zustande sich befindet;
desgleichen des Mastdarmes durch die Fäces
die Schleimhaut der Mutterscheide durch den na-
en Schleim der von den folliculis mucosis un-
ripsis ectasis in den Scheidenrugenen
abgesondert wird; ebenso die Conjunctiva du-
die Thränenfeuchtigkeit; desgleichen die Sch
haut der Mundhöhle durch das empyreuma-
sche Oel welches aus der Pfeifenspitze herrü
Dieses aber scheint mir nicht wahrscheu-
lich, daß das Gift mittelst Küsse oder son-
anderen sanften Berührungen dem Menschen
mitgetheilt werden könne; ausgenom
wenn die Syphilis schon in der Mund, oder
Rachenhöhle haftet, dann waren freilich de
stinkende Speichel, die Schleimhaut der
Lippen des geküßten, zur Aufnahme des
giftes fähig machen.

Eintheilung der syphilitischen Krankheiten.

Die Wirkung des Giftes erstreckt sich entweder auf einzelne Theile, das heißt: nur auf solche die mit dem Gifte in unmittelbarem Contacte kamen; oder sie erstreckt sich auf den ganzen Körper, das heißt auf solche Theile die weit von der Berührungsstelle entfernet sind, und darnach theilt man diese Krankheiten ein: in örtliche und allgemeine Morbi venerei topici et universales.
Diese Einwirkung ist aber keine sich immer gleichbleibende, absolute Einwirkung; sondern sie leidet durch die Individualität des Kranken, die Art der Mittheilung, und die größere oder geringere Reizempfänglichkeit, die mannichfaltigsten Modificationen. Daher die so vielen Formen, der wechselnde Verlauf des Uebels, welches sich oft lange nur auf einen eingeschränkten Theil beschränkt; bald aber auch sehr rasch eine allgemeine Krankheitsmetamorphose in die Lymphgefäße setzt.

A. Oertliche Syphilis

Die oertliche syphilis, oder welche Benennung noch logischer ist primitive syphilis ist eine Entzündung eigenthümlicher Art, welches als Folge der unmittelbaren Einwirkung des gifts auf die Schleimmembran der Ruthe, der Mutterscheide, des Mastdarmes, der Augenlieder, der Mundhöhle, oder auf andere verletzten Stellen einer pathologischen Schleim, absonderung erregt, seltener wirklichen Eiter, d. h. Chanker producirt.
Die wichtigsten Arten der örtlichen syphilis sind folgende:

1 Gonorrhoea, Blenorhoea, Tripper;
2 Fluor albus, weißer Fluß;
3 Ophthalmia gonorrhoica;
4 Ulcus syphilitticum, Chanker.

9. Allgemeine Syphilis.

e allgemeine syphilis, oder die bessere Benen-
ung syphilis secundaria s. inveterata,
scheint unter mannichfaltigen Krankheits-
men: von welchen die mehresten an solche
tellen vorkommen, die von dem inficirten
te weit entfernet sind.
ie wichtigsten sind folgende:
. Affectionen der glandulösen Gebilde:
estitis, Orchitis, hernia humoralis,
entzündung der Hoden;
Epididymitis, Entzündung der Nebenhoden;
Bubo, Leisten-Beulen;
Phymosis, Einklemmung der Eichel;
Paraphymosis, Spanischer Kragen.
ancher wird freilich einwenden wollen,
ass die zwei letzteren in keinen glandulösen
n Gebilden ihren Sitz haben, es wird mich
ur zu weit führen, hier diese Einwendung
u beseitigen.

b. Affectionen der Schleimhäute:
vorzüglich erscheint diese affection im Schlunde u.
wenn sie sich selbst überlassen bleibt, zerstö-
ßt sie die Gaumenbeine und die Nase
Ozaena syphilitica.
Die syphilitischen Polypen in den verschiedenen
Höhlen kommen nicht so häufig vor; und ich
möchte fast ihre Existenz bezweifeln.
c. Affectionen der äussern Haut: von denen die
am häufigsten vorkommen folgende sind:
Verrucae sie sind trocken und gefurcht: kommen
gewöhnlich am Gesichte und den Händen vor.
Condylomata. Feigwarzen. sie sind weich und
fleischartig. Sie kommen gewöhnlich vor an der
Ruthe, um den After, in welcher letzterer gegen
sie gewöhnlich breit sind Condylomata lata;
und zuweilen ganz geschwürartig aussehen;
so daß der Ungeübte sich leicht mit der Plagna
täuscht; ferner kommen die Condyl. vor an den
Schultern und um das äussere Ohr.
Die C. arborescens s. mordax habe ich nur an den
Eichel beobachtet.
Pustulae syphiliticae kommen gewöhnlich

geschichte vor, und wenn sie die ganze Steinpseud
gend von Schläfe zu Schläfe einnehmen, so
ind dieser Ausschlag Corona veneris genannt.
Rhagades sind tiefsitzende Hautrisse in der
lamanus vor.
erpes syphiliticus. Die Speise die ich beobachtet
heint ulcus herpeticum, und zwar innerhalb
e geschichte.
ie sarcomatose Entartung des Testikels, als den
ancer penis habe ich nur selten Gelegenheit
ehabt zu beobachten und gehört zu den
ffectionen der glandulösen Gebilde
Affectionen im Knochensystem
nwährlich leiden nur solche Knochen die nicht
n vielen Muskeln bedeckt sind. Dahin gehören
: tibia, humerus, clavicula, und die ossa cranii.
iese affectionen bestehen anfänglich nur in
einem subinflammatorischen Zustande der
nochen selbst, welches nur nachtliche Knochen
chmerzen verursacht; hernach aber bewirkt es
exsudation zwischen dem Knochen und der
einhaut, welches wenn sie weich anzufühlen
ind: gummata und wenn diese geschwälzte

hart sind: Nodi Tophi heißen. Ist der Knochen selbst aufgetrieben so heißt es Exostosis syphilitica und im letzten Falle entsteht Caries syphilitica. Man will der syphilis ferner noch andere Krankheiten zuschreiben als Lungenblennorrhoen u. s. welches aber von der Erfahrung doch vielleicht nicht bestätigt ist.
Die Syphilis hereditaria habe ich nur einmal die Gelegenheit gehabt zu beobachten.

Prognosis

In Hinsicht den Kranken zu heilen, ist sie mit ausnahme der Ophthalmia gonorrhoica, fast immer bona und sowohl bei der allgemeinen als bei der örtlichen, und fast in allen Formen, so lange das Gebild noch nicht völlig destruirt ist. Nicht so aber in Hinsicht dem chronischen Verlaufe vorzubeugen welches bei der größten Sorgfalt des Arztes und der strengsten Folgsamkeit des Patienten doch zuweilen erfolgt.

ie Behandlung der Syphilis.

t Übergehung der Methoden, die Syphilis ohne
er zu heilen, welches die Grenzen dieser Dispu-
tion überschreiten würde, will ich hier nur
er die Behandlung mit Merkur, welches doch
sicherste ist, sprechen. Gleichfalls erlaubt
ir Zeit und Raum nicht weder über die Diagn.
einzelnen Formen, noch etwas über die äuß.
e Behandlung der Chanker, Condylomen,
itis, Epididymitis, Bubo, herpes syphilis.
rüber ich manche Erfahrung gesammelt
be und darüber nicht wenig sagen könnte,
schreiben.

Wirkung des Merkurs
mannichfaltig die Behandlungsweise des
rkurs ist, so unzählig sind fast die aufgestellten
ypothesen über seine Wirkung, welches,
reint mit unter stattfindenden Spitzfindi-
n Theorien über allgemeine Pathologie, den
ugehenden Arzt nicht selten zu Mißgriffen
leiten; nur unserer Zeit scheint es

vorbehalten zu sein, die Medizin von allen solchen unsinnigen Wortkram zu reinigen, und die Behandlung der Krankheiten durch die Vereinigung der Empyrie mit dem Rationalismus sowohl, als mittelst der unbefangenen Ansichten über Materia medica, mit glücklicherem Erfolge gekrönt zu sehen.

Hufeland sagt „Mercurius ist ein solvens decomponens, absorbtionem lymphaticam promovens, deoxydans, cohaesionem et energiam vitalem minuens, antiplastica, salivam movens, secretiones augens etc.“ Mit der Ansicht über Mercur wird man leicht am Krankenbette die Indicationen für seine Anwendung festzustellen, und nach Umständen zu modificiren wissen.

Mercurialpraeparate.

Die Praeparate welcher wir uns gegenwärtig bedienen, sind eigentlich nicht viel, und nur das Calomel, aetzende Sublimat, M. subl. corrosivus, der Zinnober Cinnabaris und die graue Quecksilbersalbe Ungt. Hydrarg. cinerr. sind unentbehrlich.

Vorzügliche Methoden bei der Anwendung
Quecksilbers.

Mit Übergehung der unpassenden und zum
Theil obsoleten Methoden als die Extinctions-
oder Dämpfungskur; die diaphoretische Kur;
die Räucherkur; Cirillo's Methode: Ein-
reibung des Sublimats in die Fußsohlen;
Bazennes antivenerische Fußbäder;
Clare und Cruikshanks Methode: Einreiben
Calomel in die innere Seite der Backe; und
Boyers Sublimat Clystiere, will ich nur
Louvriersche Schmierkur, verbessert von
Cust; das Fittmannische Decoct und Pondis
Sublimat Pillen anführen.

Die Schmierkur. Frictionskur. grand remede

Sie war schon in frühern Zeiten bekannt
ist aber hernach fast in Vergessenheit
gerathen; bis ihr endlich Lanvier und vorzü
lich Rust grosses ansehen wieder verschaff
Rust hat sie auch auf nicht syphilitischen Krank
heiten ausgedehnt, denen eine völlige Störun
des Reproductionsprozesses zum grunde liegt. Ind
nach seiner Meinung der Merkur nicht als Specif
wirkt; sondern blos die Thätigkeit des Lymph
systemes erhöhend, wodurch die Resorption bis
zum Letzten gesteigert, das bereits Entartete zu
Norm wieder zurückgeführt, das ganz unbrauchbar
gewordene entfernt, und so eine völlige Umstim
des Organismus hervorgebracht wird. also ganz in
übereinstimmung mit Hufelands Ansicht.
Indication für die frictionskur.
Wir nehmen unsere Zuflucht zu dieser eingreifenden
und ich möchte sagen heroischen Kurmethode, nur d
wenn wir von dem internen Anwendung keinen
gebrauch machen können; dieses ist der Fall wenn d
verdauungsbeschwerden den innern gebrauch des

vium verbieten; wo auf den innern Gebrauch zwar
oder zu viel Affection des Unterleibes und
ganzen Systemes folgt; wo schon die Knochen
leidet sind, welches der gewöhnlichen Kurmethode
Mercur innerlich zu geben nicht weichen will,
tra indicationem der frictions cur.
darf nicht angewandet werden bei solchen
sich in einem schwachen Zustande befinden,
hr gereizte Nerven haben; bei Hysterischen
Hypochondrischen; bei solchen die zu sehr zu
Wallungen geneigt sind; oder mit Brust-
eschwerden, Blutbrechen, Zehrfieber,
rbut u. s. w. behaftet sind.
Vorbereitung der Cur.
Krankheiten sich einer gehörigen Cur vorbe-
iten: durch Bäder, Abführungsmittel und
ine sehr strenge Diät; wodurch die ~~Einsau-~~
~~ugs~~ Empfänglichkeit für den eingerie-
enen Mercur gesteigert wird und der Re-
ceptions prozeß erhöhet wird

Ordnung der Einreibung.

Am ersten Tage wird die graue mercurial-
salbe Ungt. cum hydrarg. cin. drach. 1 in d
beiden Unterschenkel eingerieben, am
dritten in die Oberschenkel, am sechsten in be
en Armen von der Handwurzel bis d
Schultergelenk, am neunten in den R
en von den Hüften bis zum Halse; a
den siebenten bis zum funfzehenten T
können nach Umständen 2—3 oder 4
Einreibungen gemacht werden. Zwi
en den 14ten und 16ten Tag bemerkt man
stattgefundene Umstimmung im ganze
Organismus, welches sich durch die Symp
einer allgemeinen Reizung sich äußert,
durch kritische Ausleerungen, durch die Fla
den Parotidenall und der Ruhr entscheide
Am sechszehenten läßt man wieder ein
reiben, giebt den andern Tag ein Purgir
mittel und fährt so bis zum 25ten Tage fo
wenn nicht Zuckungen, Bewußtlosigkeit,
große Schwäche eine frühere Unterbr
ung der Kur gebieten. Am 26sten Tage wird

Kranke in ein warmes Bad gesetzt und nach
er halben Stunde mit Seifenspiritus ganz rein
ewaschen. Selten aber wird der Praktiker die Kur
diese Art wie sie von Rust vorgeschrieben ist
tsetzen: denn entweder tritt die Besserung schon vor
19ten Tage ein, und zwar ohne merkliche irritive
scheinungen, oder die Crisis kommt zu spät
d der Kranke kann es nicht mehr ertragen.

Decoctum Zittmanni

Die Formel ist folgende:

Rp. Rad. Sassaparill. Unc. XII

coq. c. aq. font. lib. XXIV p. 24 h.

adde

Alumin. saccharat. ℥ß

Mercurii dulcis ℥ß

Cinnabar. Antim. ʒj

in nodul. ligat. sub fin. coct. admisce

Fol. Senn. ℥iiij

Rad. lig. ℥ij ß

Sem. anis. vulg.

— foenic. a. ℥ß

Col. lib. XVI S. ad lagen VIII T. Decoct. forte.

Rp. Resid. Decoct. fort.

Rad. Sassaparill. ℥VI

coq. c. aq. fort. lib. XXIV sub fin. coct.

adde

Pulv. cort. Citr.

— — Cinam.

— Cardam. a. ʒiiij

Rad. lig. ʒVI

Colat. lib. XVI S. ad lag. VIII T. Decoct. tenue

Anwendung des Zittmanns Decoct.

einen Tag zuvor bereitet sich der Kranke
t einem Laxans aus Calomel zur Kur vor.
e folgenden Tage trinkt er Morgens eine
Portelle erwärmtes starkes nach Mittag
ine Portelle nicht erwärmtes schwaches
coct. Am sechsten Tage wird wieder ein
xans aus Calomel und die 4 folgenden
ge das Decoct auf angegebener Weise
enommen.
t der Kranke noch nicht geheilt so wende
an die Kur zum zweiten Male an.
Bei sehr robusten Kranken gebe man am
ilften Tage noch einmal ein Laxans.

Pyrondico Pillen.

Der Kranke fängt an mit $\frac{1}{9}$ gr. Sublim. in 4 Pillen; einen Tag um den andern steigt man mit 2 Stück, so daß am letzten Tage der Cur welche 27 Tage dauert 30 Stück also $1\frac{1}{2}$ gr. Sublimat auf einmal genommen werden.
Muß man die Cur wegen Speichelfluß unterbrechen; so soll man mit der zahl Pillen fortfahren, bei welcher man stehen blieb.

...nahe in den drei Haupt-Methoden.

...lich nun von diesen drei Hauptmethoden
...Vorzug gebührt, so muß ich mich meiner
...ts ganz für Pyrondi erklären; dann er
...in allen Fällen ausführbar, welches nicht
...Fall ist bei der Rustischen oder ~~Pyrondi's~~
...ttmanns; besonders bei der ersten;
...ch habe ich von Pyrondi's Pillen immer
...eine Wirkung als von Kittmanns Pulver
...esehen. Werde aber doch bei bedeutend
...ven syphilitischen Übel, wo Gefahr
...n Verzuge ist, Pyrondi's Methode der
...ouvriere-Rustischen nachsetzen.

Inaugural Dissertation
on
Lues venerea

Submitted to the examination of the Provost
Trustees and Medical Faculty
of the University of Maryland
for the degree of
Doctor in Medicine by

Alex. Hamilton Bayly
Dorchester County
Maryland

March - 1835

To

Samuel Baker M.D.

Late Prof. of Materia Medica &c in the University of Md.

This inaugural essay is inscribed
as a tribute of respect for his medical talents,
and of Gratitude
for the care with which he endeavoured to
inculcate just principles of Medical Science,
on the mind of his obliged friend and Pupil
Alex. Hamilton Bayly.

To

Professor Geddings. this dissertation is most respectfully and gratefully dedicated as a sincere tribute of esteem and respect, and for the many favours and benefits which have been conferred on his friend and pupil

The Author.

To

William N Bates M.D.

and

Mr Samuel George Bates

this Dissertation is affectionately

inscribed by their friend

Alex. Hamilton Bayly-

Lues venerea.

"Haud ignaras mali, miseris succurrere disco"

The origin of Lues venerea has long been a subject of much debate among medical writers. So many different opinions have been advanced, that it would be impossible in the compass of a discourse like the present, to attempt their enumeration; I shall therefore merely enumerate such as are most conclusive.

We are told by many Writers, that this disease was imported from America into Europe, by Christopher Columbus and his companions between the years 1494 and 1496; And why? merely because it happened to rage in Europe shortly after their return. But ought we not rather to look upon this as a coincidence, than as a consequence? For by referring to History and Chronology we will perceive that this disease existed long before the discovery of America. If ~~this~~ such a loathsome disease as Lues had existed among the Aborigines of this Country, would it not have been mentioned by some of the numerous Historians, who have written upon this country? But do we find this to be the case? We certainly do not. To find out the precise time of its first appearance, would indeed be a difficult task.

The Ancient Writers have described the many derangements of the economy, attributed at the present period to the Syphilitic virus. Paulus Aginata asserts that in many cases the skin

Lion Hunters.

"Hunt ignorance hard, and it will escape you."

The origin of this proverb has long been a subject of much debate among learned writers. Numerous different opinions have been advanced that it would be impossible in the compass of a volume like the present to attempt their enumeration; I shall therefore merely commend such as are most plausible.

We are told by many writers that the Chinese were originally from America and not from Europe, by Chinese Confucius and his companion between the years 1494 and 1496. How? why? merely because it appeared to some in Europe who first visited them. That people are not modest to such upon this as in similar cases from an a consequence? For by referring to History and Chronology we find this Chinese capital long before the discovery of America. If this such a Confucius Chinese has lived among the aborigines of this country, would it not have been mentioned by some of the numerous Missionaries who have written upon this country? That Chinese would this to be the case? We certainly doubt. To find out the Chinese time of the first appearance, would indeed be a difficult task.

The Chinese do not to have invented the money commonly of the country, attributed or the Chinese having to the Phoenicians. Chinese Phoenicians appear that in many cases the ship

of the Prepuce, and sometimes part or the whole of the Glans Penis becomes gangrenous and sloughs' (Gourdan) Lanfranc speaks of Warts on the Prepuce arising from an impure intercourse (Gourdan). Brunus of Calabria treats of Fornica of the Penis, which term served to denote a sort of pustulous and eating Ulcer. (Gourdan). Plutarch in his life of Otho speaking of Vitellius, says that he was afflicted with several diseases produced by impure coition. Beckett relates from a manuscript found in the College of Lincoln, at Oxford, that John of Ghent, died (in 1399) of a gangrene of the Genital organs and body produced by intercourse with lewd Women. Pliny relates in his letters an anecdote, of somewhat similar. A Woman seeing her husband afflicted with ulcers on his Genitals, which from long continuance, were becoming gangrenous, and despairing of a cure, rushed with him into the lake Como. Herod. King of the Jews, according to Josephus, died of an Ulcer on the Genitals, which caused a gangrene of these parts. The Emperor Galerius Maximus died of Ulcerations of the Genitals, and fistula in Perineo; the whole of his body exhaled a most offensive stench (Gourdan).

If we refer to one of the oldest Books we have in existence - the Bible - we will find many passages which tend to prove the antiquity of this disease. It has been said by authors of the highest respectability, that the sore boils wherein Satan smote Job by God's permission from the sole of his foot to the crown of his head were venereal.

Job. Ch. XX. V. 11 He says "his bones are full of the sin of his youth, which shall lie down with him in the dust."

of the Orphans, and sometimes, but not the rule, of the Poor Farm, are some of genuine and simple (humorous) humorous stories of the Orphans arriving from an orphans institution (humorous). Humour of situations arising of humour of the Farm, which then served to counteract of the town and setting Satire (humorous). The Stock in his life of the schooling of the children, says that is now appointed with several Orphans provided of orphans institution. Sarah is left from a university school found in the College of Schools, of Oxford that Sarah of Oxford, that (in 1939) of a graduate of the Provincial organism and Sarah found of in Toronto with that humour. Sally which in his letter in accord of a commercial similar: it Toronto using for Hardwood of Pastel with also in his Pastel, which from long unfamiliarity, in coming from Orphanage, and children of a town, and Sarah from the Sarah Farm. Hard hung of the Farm, according to Pastel but of an Hour in the Pastel, which second impression of these Sarah. The humour Sarah Farm but of a Farm where of the Pastel, and his Sarah in Farm, the story of his early Pastel's and Pastel's school (humour).

If we refer to me of the actual Sarah in have in our time. It Sarah in with just many Pastels which that I have the Sarah of the Pastel's Farm. It has been said of a Farm of the Pastel's Pastel's that the Sarah Farm Farm and of Sarah's Pastel's from the one of his Pastel to the Farm of his Sarah Farm.

Sarah. XX. 7.11 It says "his Farm the Pastel of the Farm of his Pastel, which Sarah is from with his in the Sarah."

The following verses also lead us to believe that David was alike unfortunate.

Psalm. 38. V. 3. "There is no soundness in my flesh, because of thine anger, neither is there any rest in my bones, because of my sins".
V. 5 — "My sores are putrified and corrupted because of my foolishness
V. 7 — "For my loins are filled with a loathsome disease, and there is no soundness in my flesh."

We find in Ecclesiasticus. Chapter 19 — Verse 3 — as follows — "And he who joineth himself to Harlots, will be naught — rottenness and worms shall inherit him".

Johannes de Vigo notices the way in which the disease is communicated by a chancre, in a very particular and accurate manner — Ejus origo in partibus genitalibus, viz. in vulvâ in mulieribus et in virga in Hominibus, semper ferè fuit cum pustulis pavis, interdum lividet caloris aliquando nigri, nonnunquam sub albidi cum callositate eas circumdante" (Dorsey's Cooper). This quotation shows that it was propagated from the beginning as it now is by what the old Writers called a pustule, and we name a chancre.

The facts which we have related in the preceding pages, to prove that Lues Venerea was not introduced into Europe from America are I think sufficient to convince the most sceptical.

It has long been a contested point whether Gonorrhoea and Lues Venerea are distinct diseases, or the same complaint differently modified. The latter opinion, for some time was by far.

The following verses also tend to show that David was a superstitious.

"Psalm. 39. V. 3. "Man is no something to my plans, because my time any particular is then any not in my hand, because my days are."

V. 5 — "My days are particular and compared because of my, particular."

V. 7 — "Surely every man walks in a vain shew, surely they are disquieted and there is no something in my plan."

The point in Ecclesiastes. Chapter 11 — Verse 3 — is perhaps "that he who finds himself to North, with is unequal outlook and uncertain what is best then."

Whatever the Hebrew motive the way in which the Chosen is communicated to us shows, in a very particular and assured manner, this origin in particular superstition, and in such this particular of its origin in Phoenicia, suggest that from particular family, it then bringing religious origin, consequence such which was collected an circumstances (Prof's Letter). This question shows that it was brought from the beginning as it were in by what the traditions called a particle, and we seem a chosen.

The point which we have noted in the preceding pages, shows that this Israel was not interbreed in Europe from Phoenicia or Tribes suggesting to examine the most applicable.

It has long been a matter of doubt whether the Phoenicians and the Israelites are distinct races, or the same complexion of physically modified. The latter opinion appears from one of your

the most popular, and it is but lately that the consideration of their being distinct and different diseases has received any very considerable support.

Gonorrhoea and Lues Venerea do not produce each other. Notwithstanding the many arguments which have been brought forward to refute this opinion, a portion, yet in my humble opinion it stands unshaken and well supported. If the virus of Gonorrhoea and Syphilis were of the same nature, a person labouring under a chancre only would be able to communicate to another not only all the symptoms of lues, but also of Gonorrhoea, and "vice versa". But do we find this to be the case? experience proves the contrary. I have known several instances, wherein by the negligence of the patients, Gonorrhoea has continued for the space of two or three years, without a single symptom of lues supervening, and ultimately "wearing itself out." Had these individuals laboured under the influence of the Syphilitic virus, and had been as regardless of their health, secondary symptoms would undoubtedly have supervened, and eventually destroyed them.

The advocates of the opinion that they are produced by the same poison, dwell strongly upon the circumstance of the two diseases sometimes occurring in the same individual. This objection would at first appear very plausible, but if we examine into the cases, we find it always owing either to a subsequent connection, or to the person having been infected with

both diseases at one and the same time. And again if these diseases produced each other we ought to find them constant companions in every case.

The two diseases require different modes of treatment for their cure; this argument I think is sufficient of itself to convince any reasoning mind. It was Hunter's opinion that Gonorrhoea and Syphilis arose from the application of the same specific virus, and the difference of the effect he explains by the application of the same being made in the first instance to a secreting surface; and in the second to a non-secreting surface. The virus when applied to the former surface always gives rise to inflammation followed by a discharge, in the latter to ulceration. This opinion will not stand the test of experience. Chancres very often exist a long time and occasion the continued application of the Syphilitic virus to the orifice of the Urethra without producing the slightest Gonorrhoal discharge from that duct; this fact is known to every one who has had any experience in the disease. Mr Hunter asserts that the Glans Penis is not endowed with the power of secreting, but if we refer to Meckel and other anatomists we perceive that "all around the neck and posterior face of the crown of the Glans Penis presents numerous rounded depressions, termed Glandulæ Tysonianæ, which secrete a thick and whitish fluid."

During my stay at the Baltimore Infirmary two cases fell under my observation which are very conclusive. A Sailor by the name of Hodges was admitted during the past summer, la

-bowing under both Gonorrhoea and Syphilis, contracted at different periods. There were several Chancres around the Corona Glandis and one immediately in the orifice of the Urethra, and a very profuse Gonorrhoeal discharge, and or Urina-Chordee &c. Under the influence of Mercury and a wash of dilute Chloride of Soda all his Syphilitic symptoms disappeared, and still his Gonorrhoea continued without the slightest mitigation, but in the course of one or two months this also was cured, not by Mercury, but by diet and the Balsamic medicines.
Now according to Hunter the virus when applied to the Urethra is not capable of producing ulceration, but must invariably produce a Clap and nothing else. In the other case (the name of the patient I do not recollect) there was a Chancre in the orifice of the Urethra extending nearly to the fossa Navicularis, and unaccompanied by any Gonorrheal discharge-Chordee-and or Urina or any symptoms of Clap. This patient was also cured by the administration of Mercury and a lotion of Chloride of Soda.
The venereal virus when applied to any part of the body will invariably produce a chancre, but ~~not~~ the matter of Gonorrhoea will not, I have seen it applied repeatedly to raw surfaces without the slightest effect.
Buboes resulting from the two diseases are very different in their appearance-termination and frequency. Buboes resulting from the absorption of the Syphilitic virus are sometimes very troublesome

Income consists of [illegible] and of profits in consequence of the
different laws. Then our annual income consists the income
of trades and are immediately in the subjects of the kingdom, and
a very large portion of annual income arises in trades, and
under the influence of increasing and is mostly by distant channels
of trade with the Republics of Europe, the opposition and with
the Spanish continent and the Republics on the Pacific,
that is the source of one or two quantities that also were carried
out of increasing, and of that and the Spanish the business
of our according to the power which applied to the industry
is not capable of increasing abroad, but must eventually
produce a stop and nothing else. In the state we are in
(particular of the not needed) there seem a change in the con-
ditions of the other operating only to the future of consumption, and
accompanied by any [illegible] in charge. Trade under
[illegible] or any operation of stop. This [illegible] seem also
caused by the administration of increasing and a return of
[illegible] of trade.

The general view when applied to any part of the body will
necessarily produce a change, but not the quantity of [illegible]
all work. I have seen it applied especially to our [illegible] with
the single tax plan.

Taxes resulting from the time business [illegible] applied in this
[illegible] commission and [illegible]. Taxes resulting from the
absorption of the Republics have an [illegible] [illegible]

affections and if not correctly treated give rise to the most destructive and unmanageable ulcerations; and in some cases in spite of the most judicious treatment the abscess when opened, remains stationary - indurated edges - granulations soft and flabby, discharging a copious and highly offensive fluid. On the other hand buboes arising from the mere sympathetic irritation of Gonorrhoea when they do suppurate heal as readily as a common Phlegmon. Syphilitic Buboes almost always terminate in suppuration if not treated with judgement and energy; the Sympathetic Bubo on the contrary seldom suppurates, and will often disappear without the application of a single discutient, as soon as the primary local irritation upon which they depend is removed. Buboes more frequently result from the absorption of the Venereal Matter than from the irritation of Gonorrhoea.

This disease arises from a specific morbid poison, which when applied to any part of the human frame produces effects on the part to which it is applied, or on various parts of the body in consequence of absorption. Lues is divided by writers into two distinct stages - primary when it is altogether local - Secondary or Constitutional when the virus is absorbed and affects the whole system.

The interval between the application of the poison and its effects upon the body varies from a few days to several weeks, I saw a case in which the disease did not mani-

-fest itself for seven weeks. Generally about three days after an impure venereal intercourse it commences, with one or more small Pimples full of matter, preceded with an itching in the part, the itching is gradually converted into pain and the pimple into an Ulcer denominated Chancre. The true Syphilitic Chancre according to Hunter, is somewhat of a circular form, excavated without granulations, with matter adhering to the surface and with a thickened edge and base. This hardness and thickening is very circumscribed; not diffusing itself gradually and imperceptibly into the surrounding part, but terminating very abruptly. The are most commonly found on the internal surface of the Prepuce - Glans Penis - ~~and~~ Frenum - Penis - Scrotum and thighs, and in Women on the Labia Majora and Minora - in the Vagina - Mons Veneris - thighs.

When the Chancre is situated on the base of the Glans Penis I have found that Buboes are more apt to occur than if it were on the Glans itself, owing no doubt to the lymphatics being far more numerous in the former than in the latter region. When they first make their appearance, it has been recommended to destroy them by the Caustic Potassa, but this practice is sometimes followed by very unpleasant consequences; for by the application of the Caustic, the virus is confined by the eschar produced, and corrodes the part so as to form a deep ulcer, and in this confined situation is

more readily absorbed. This practice is now seldom resorted to by Surgeons. In the treatment of Chancres our attention should mainly directed to the constitution of the Patient. It is of the greatest importance to protect the system against the occurrence of a Syphilitic taint, it will therefore be proper to put the patient at once under a gentle mercurial action, in conjunction with local applications to the Chancres. When the general system is inflammatory, venesection should be employed, and followed by a dose of Calomel and Jalap ten grains each. The patient should be confined to bed and use a very mild and uninvitating diet. If the Chancre be very painful and the prepuce inflamed, the best treatment would be to scarify the Prepuce freely with a sharp lancet or Scalpel, and then apply a warm poultice of Flax seed meal, wet with an aqueous solution of Opium. I have seen this practice attended with the happiest results. After the System has become more tranquil, the patient should then be subjected to the influence of Mercury. The following prescription I think is a very good one

℞.

Proto. Chlor. Hydr. — ℈j

Ext. Conii —

Pulv. Opiaceae ā ā ā grij to be taken three times a day. The Conium will have a tendency to prevent the Calomel from running off by the bowels, and also to tranquilize the system, the Opiaceae by depressing the action of the Heart and

cateries will promote the absorption of the Calomel. Calomel is decidedly preferable to the Blue Pill or Bi. Chloride of Mercury. The former is by no means as certain, and the latter often produces the most violent gastric distress, as I have witnessed repeatedly at the Baltimore Infirmary. When the inflammation has subsided in the Prepuce, we should have recourse to some gently stimulating applications. The Chloride of Soda is indeed a most excellent ~~wash~~ lotion, ~~being both~~ gently stimulating the chancre and at the same time destroying the villanous odour exhaling from its secretion. If the chancre did not put on a healing appearance in four or five days, more active agents should be employed such as the Black and Yellow Washes, Solutions of Nitrate of Silver - Sulphate of Copper - Sulphate of Zinc - Basilicon - Citrine and Red Precipitate ointments, and if these fail we should resort to the Undiluted Nitric Acid - Caustic Potassa or the Actual Cautery. I have frequently seen the two former prove effectual in curing the most obstinate chancres. The parts should be kept clean by frequent ablutions, the mercurial ~~[illegible]~~ impression should be kept up for four or five weeks, and it is of the utmost importance that the patient should avoid a damp and cold atmosphere, and that he should keep up a gentle action on the skin by warm clothing. His diet should be mild and uninvitating, he should remain within doors during damp weather, for

to-time with honest the education of the colonist.

colonist is decidedly superior to the Native Bill or Tiki-Tiki-
-wiki of the army. The former is by no means so certain, and the
latter
of the Jewish the most critical of actions. In fact, as I have
indicated adjacently at the Colonial Exhibition. While the
explanation has included in the figures a should have
reason to some quite attractive application. The Tiki-
-wiki of Tonga is indeed a most excellent [illegible]
being quite attractive the shows and at the same
time keeping the millenium entire explaining from it some
tion. If the shows did not put in a lasting effect some
in four or five days, more action again should be employed
back on the Tiki and Tiki-Tiki-Tonga. Institution of Tiki
Tiki-Tiki of Tiki-Tiki Tiki of Tiki. Possibility
tions and the Jewish Tiki-Tiki, and if these Tiki
we should never be the Tiki-Tiki-Tiki. Tiki-Tiki Tiki
-pen on the Tiki-Tiki country. I have frequently seen the Tiki
[illegible] attract in seeing the most attractive Tiki-Tiki.
The Tiki should be Tiki-Tiki-Tiki Tiki-Tiki-Tiki, the
[illegible] Tiki-Tiki should be Tiki-Tiki-Tiki-Tiki
-pin [illegible], and it is by the Tiki-Tiki Tiki-Tiki that the
Tiki should avoid a [illegible] and Tiki-Tiki-Tiki,
that it should Tiki-Tiki a [illegible] action in the Tiki-Tiki
[illegible] Tiki. His Tiki should be a Tiki and [illegible]
[illegible] should [illegible] Tiki-Tiki [illegible]

there is great risk of receiving injury from cold while the system is under the influence of Mercury.

A Bubo is a swelling in the absorbent system, arising from the ~~application~~ absorption of the venereal virus. They more frequently follow chancres on the Prepuce and Corona Glandis for reasons which have been previously stated. They occur more frequently in the right than in the left groin; and when there is one in each groin, that in the right is the largest, and most apt to suppurate, such has been the results of my observations at the Infirmary.

The Syphilitic Bubo generally commences with pain more or less severe and impeding the locomotion of the patient, on examining the part a small hard tumour will be perceived, very painful to the touch, which increases very rapidly, and if not checked it advances to suppuration and ulceration. The inflammation is at first confined to the gland, which may be moved about in the cellular tissue, ~~at~~ but when the inflammation has become more advanced, the surrounding parts become implicated and the tumour is more diffused. It is very rapid in its progress from inflammation to suppuration and the suppuration is commonly large.

We should use our utmost endeavours to disperse it as soon as possible, for if it suppurate there results a very troublesome and sometimes destructive ulceration. Where the system is Phlogistic and the

there is great risk of receiving injury from cold while the system is under the influence of morphine.

A Phthisis is a swelling in the blood-vessel type, arising from the [illegible] obstruction of the venous lymph. My more frequently follow chancre on the tongue and lower lip, though for reasons which have been previously stated, they occur more frequently in the right side in the left opening; and when there is one in each lymph, that in the right is the larger and more apt to suppurate, such has been the result of my observations of the syphilitic.

The syphilitic Phthisis generally commences with pain, more or less severe, and including the lymphatics of the left or right side, accompanying the lymph a small hard tumour will be noticed, very painful to the touch, which increases rapidly, and if not checked it advances to suppuration and ulceration. The inflammation is of that character which may be spoken of as the cellular tissue, and that the inflammation has become more or less of the surrounding parts before suppuration and the tumour is more developed. It is very rare that in the primary form of inflammation to suppuration and the suppuration is comparatively large.

It should be our chief endeavour to disperse it as soon as possible, for if suppuration should take place, [illegible] ulceration. When the inflammation is [illegible] and the

patient experiences a great deal of pain and tenderness in the part, our most efficient means are Bleeding both generally and locally Emetics and Nauseating doses of Tart Ant. Saline Cathartics - Perfect rest - and very low diet. Cold Astringent lotions such as solutions of Acetate of lead, or of Muriate of Ammonia. Pounded Ice - Cold Clay - linen wet with Alcohol or Ether and applied in such a manner as shall not interfere with the evaporation. Blood letting should never be omitted where there is the least degree of excitement, it is our most effectual remedy. If leeches be not at hand the part should be freely cupped or scarified with a lancet, and apply a poultice of flax seed meal as warm as the patient can bear it. If it still progress mercurial frictions should be largely employed to the tumour on the inner surface of the thigh, and if we do find the tumour diminishing a blister should be applied, which will frequently check the further progress of the swelling. If these means fail to avert the progress of the bubo, and its tendency to suppuration inevitable, we should endeavour to promote its suppuration by warm emollient poultices, and when we can distinguish fluctuation in it, the lancet should be introduced and a free incision made so as to evacuate its contents. If the Bubo instead of suppurating become hard and indolent, it may be discussed by the repeated applications of Blisters - Tart. Emet Ointment - Hydriod. Mercur. Oint or by compression. When the abscess is laid open, it will generally heal

Rational explanation is equal first by pain and tendency in the part, our most efficient means are distributing both generally and locally stimulation and alternating from by short rest. Pain is determining factor and should any our rest. Self determinant action must be made to take form by treatments by heat or by massage by immersion, humanized fire. Self drug. Tissue and with blood or other and application such a manner as that not interfere with the improvement. Blood letting should never be omitted when there is the least degree of exaltation, it is our most efficacious remedy. If besides we must at least the part should be freely cupped or scarified with a lancet, and apply a revulsive plaster and heat in some to the patient can bear it. If still frequently increased pulsations should be largely employed to the accompanying or the inner surfaces of the thighs, and if we be joined the general diminishing is this should be applied, which will frequently cause the further progress of the swelling. If this means fail to cause the progress of the tissues, and it tending to suppuration inevitable, we should endeavour to hasten its suppuration by means emollient fomentations, and when we can distinguish fluctuation in it, the lancet should be introduced and free incisions made so as to encourage the escape of the pus and instead of stopping treatment because hardened tissue should be disrupted by the repeated application of blistering. Part that hardened. My friend Barker that is by compression. When the abscess is local when, it will generally heal

under the use of gently stimulating ointments - lotions and Emol-
-lient Poultices. Sometimes the ulcer acquires a very indolent
character, discharging a copious and very offensive fluid, with
hard, indolent edges, granulations large and flabby, extending much
beyond the level of the skin, such a constitutional Ulcer stimulating
applications should be resorted to, ~~such as~~ The following will be
found very excellent applications, Chloride of Soda - Solutions of
Sulph. Copper, Zinc, Nitrate Silver - Corrosive Sublimate - Dilute
Mineral Acids - Pyroligneous Acid - Powdered Galls - Peruvian
and Oak barks - Rhubarb - Ginger - Tinct. Cantharides - Citrine
Basilicon - Red Precipitate - and Cantharides Ointments - Caus-
-tic Potassa, if all these prove ineffectual, we should have
recourse to the actual Cautery. I have seen it prove highly
beneficial in promoting the cure of very indolent ulcers.
when every other remedy had failed. If the edges of the Ulcer are
projecting and very indolent they should be removed by the Scalpel
or Scissors. Mercury should also be given, and the impression kept
up for some time, the formula I recommended in Chancre will
do very well here.

Warts are frequently produced upon the Glans Penis and Prepuce
by the irritation of the Venereal virus, and are of great annoy-
-ance both to the patient and his friends from their very offen-
-sive secretion. They are generally removed by the administ-
-ration of Mercury - by the application of Nit. Silver - Caustic
Potassa, or by an ointment of Pulv. Sabin ʒj Sulph Cupri ʒjj

simple ulcerate ∫∫ and sometimes it becomes necessary to re-
-sort to the knife or scissors.

When the venereal virus becomes diffused through the system by means of absorption, it gives rise to the symptoms denominated Secondary Symptoms, and the parts which are generally affected by the virus, are the Skin – Tonsils – throat – nose – inside of the mouth – Periosteum – Bones – and tendons. The Secondary symptoms seldom supervene where the patient has been judiciously treated with mercury. It is decidedly the most powerful Anti-venereal we possess. It has been asserted by writers that this remedy is absolutely injurious, favouring the development of the constitutional symptoms. Every day's experience proves the fallacy of this assertion. Its "Modus operandi" was for some time thought to be owing to its combining chemically with the virus, thereby destroying its noxious property. This theory has now very few adherents, and its beneficial effects are at the present day supposed to be owing to its acting by revulsion, that is by exciting a train of symptoms, which are incompatible with the Pathological symptoms of lues. This view appears to me much more rational and satisfactory.

When the Skin becomes the seat of the disease, eruptions appear containing a limpid matter and resembling pimples; in other cases the eruption comes out in distinct blotches, which form a dry copper coloured scurf, this is thrown off and another of the same kind is formed. Mr Hunter remarks

that every succeeding scurf becomes thicker and thicker, till at last it becomes a common scab, then the disposition for the formation of matter takes place in the cutis underneath and a true ulcer is formed, which commonly spreads although in a slow degree. For the cure of this eruption we should rely principally upon constitutional remedies. Mercury in conjunction with Antimonials - Sarsaparilla - Guaiacum - Simple Diet. Warm bathing and aperients will often remove it.

℞. Blue Mass -- ʒj
Hydro. Sulphur. Antimon -- ʒij
Pulv Gum Guaiac -- ʒj
made into xxx
60 pills, two of them to be taken three times a day. I have seen this formula administered with advantage. The following "Diet Drink" I have seen frequently prescribed at the Infirmary by Prof. Hall and in all the cases in which it was used, it was attended with very good effects.

℞.
Pyrol. Sassap -- ʒj
Eupat. Perf. --- ʒss
Guaiac --- ʒss.
Hydro. Sulph. Anti. enclosed in a linen bag - ʒij
Aq: Bullient -- ℔ let it boil five or ten minutes. A wine glass full three times a day.

The Muriate of Gold is very strongly recommended by some writers, and is given in doses of 1/10 of a grain three times a day,

gradually increased to 1/6 of a gr. it should be given in the form of pill. The Aqueous Solution of Iodine - Iodet Hydriod. Ferri - Iodo. Hydr. Potass - Arsenite of Potassa have all been used at the Baltimore Infirmary with advantage.
As local applications the dilute chloride of Soda and Arsenite of Potassa are most excellent, they have been used at the Infirmary in several cases with complete success. The Black and Yellow Washes - Fumigations of Ethiops and Turpeth minerals are recommended.
The venereal Ulcer should be carefully distinguished from other kinds of sores in the same region. The Syphilitic Ulcer is seldom preceded with swellings, Mr Hunter describes it as a fair loss of substance, part being dug out as it were from the body of the Tonsils: it has a determined edge, and is commonly very foul, having thicker white matter both like a slough adhering to it, and not admitting of being washed away. the parts around the ulcer present a copper coloured aspect. This is also to be removed by the administration of mercurial preparations - Stimulating Gargles, such as Chloride of Soda - The dilute Mineral Acids - Pyroligneous Acid - Bi Chloride of mercury - Sulph. Tincture decoctions of Oak Bark - touching the ulcer with Nitrate of Silver. If the bones of the Nose become carious injections of Nit. Argent. Sulph. Cup. &c. should be employed.
A Node is a tumour proceeding from the Periosteum of a bone. They occur much oftener in bones thinly covered by

[illegible]

[illegible]

[illegible]

muscles, such as the Radius - Ulna and fore part of the Tibia they increase very slowly, and are at first attended with very little pain or inconvenience, but as they increase in size, they become exquisitely painful, particularly at night. When they continue long the bone generally becomes carious. If attended with much febrile irritation bleeding both locally and generally should be employed, together with purging - Emetics Narcotics - low diet - Perfect rest - anodyne fomentations or soft anodyne Poultices. When the system has become more tranquil, the patient should be immediately put under the influence of Mercury. Repeated Blisters - Tart. Emetic and Hydriod Mercurial ointments will almost invariably discuss the enlargement. Dr Eberle says that we possess no remedy more effectual than Arsenic. He employs it in the form of Fowler's Solution in doses of from 5 to 12 drops twice a day. When the pains are paroxysmal (as they frequently are), the Sulphate of Quinine in five grain doses should be given every three hours during the intermission and a full sedative dose of Opium during the Paroxysm.

Alex. Hamilton Bayly
Cambridge
Maryland.

Prescribe, such as the Medicine, Diet, and Fever Port by the Patient
they in seven very shortly, and are at first allowed with no
little pain or inconvenience, but as they in seven in age, they
become of gradually frequent, particularly at night. When they
continue long the bowels generally become costive. If relaxed
with much pain in evacuations blending forth be really need
generally should be employed, together with frequent bowels
of cassia. Never that Tepid and Warm fomentations
or soft cooling Poultices. When the system has become
more tempered, the patient should be immediately put under
the influence of mercury. Impaired Nutrition - Port Wine and
Hydrochloric mercurial combined with about minimally drachm
the subpyment. Mr Hirth says that we hopeful no remedy
more effectual than mercury. He employs it in the form
of Mercury's Pills taken in doses of grains 5 to 12 twice daily
or 3 times. When the bowels are constipated (as they frequently
are), the Sulphate of Magnesia in fine powder should
be given every three hours having the in consequence and
Pill substituted for by Opium, having the Sulphate.

Dyp. Hannah Lloyd 73 Pembroke
Cambridge
Mary Lloyd.

To

The Provost, Trustees, Dean, &
Medical Faculty, of the
University of Maryland,
this Inaugural Dissertation
is respectfully submitted
for examination, by

James L. Anderson,

January 28th 1835.

On the generation of Intestinal Entozoa in the human body.

It appears that throughout the animal kingdom, from man even down, to animals of the lowest order in the scale of creation, there is no single species, so far as investigation has extended, but which serves as the habitation and means of support of various other species of animated beings still more minute, inhabiting the interior as well as exterior surface of their bodies.—

The different kinds of worms which have been discovered in the human body, have been properly divided into two classes—1st The Entozoa, or those animals which are generated, and live within the body.— 2nd The Ectozoa. animals, so denominated, because the ovules from which they are produced, are derived from without, having been taken into the stomach accidentally, along with the food, where they remain, until they have attained the complete larva state; after which, they are discharged from the body, with the feces, to undergo the last

metamorphosis which developes the insect.
Many of the grubs of the different species of the genus Musca or Fly, as for instance the M. Carnaria or Flesh Fly, and the M. Vomitoria or Blow Fly, and a variety of others, have been discovered in the human intestines, having been taken into the stomach in the egg state together with putrid articles of food of different kinds and there undergone the change.

According to Linnaeus, the various species of Entozoa of the human body, may be properly divided into two distinct and separate classes, according to their respective situations. The 1st comprehending those animals that inhabit the Alvine Canal denominated (Vermes Intestinales) as for instance the Ascaris Vermicularis and the Ascaris Lumbricoides and many others — and which class, will be the subject of the following discourse. The 2nd comprehending those, that reside in the parenchyma

of the different organs; as for instance, the Fasciola Hepatica or Liver Fluke, the Filaria &c.

The manner in which Intestinal Entozoa are generated, has from a remote period been, and is now, the theme of the most contradictory speculations, of some of the most enlightened, and distinguished physiologists of ancient as well as modern days.

From the time of Hippocrates up to the present period, the theory of equivocal or spontaneous generation has been invariably resorted to by one class of physiologists to account for the production of all the lower orders of animals, whose process of generation is in the least degree obscure.

This theory appears to have taken its origin from the ancient Egyptians, who, to account for the appearance of the innumerable swarms of insects and reptiles, which infest that country subsequent to the period=

-ical inundations of the Nile, supposed, that warmth and moisture in certain degrees, were the only agents necessary to produce many of the lower classes of animals. According to ancient writers, even the production of the rat and frog, whose process of generation, is now known to be equally as obvious and intelligible, as that of any of the higher classes of animals, were supposed to be the result of spon=-taneous generation. But we think, it now time, to be more cautious how we advance, such unreasonable opinions, on the production, how=-ever obscure, of any class of animal beings, -no matter how low their rank, since the mi=croscope has given us incontestible evidence, of the existence of sexual organs and ova, in myriads of insects, which entirely elude our unassisted senses. Even many of the Fun=gi and other parasitical plants of the vege=table kingdom, which have been adduced as analogical arguments, in favour of the the=

ory of equivocal or spontaneous generation, are now known, to be produced from seed.

The singular circumstance of Entozoa having been observed, in the intestinal canal of the foetus and new born infant, has been supposed by such sorters of the equivocal theory, to furnish direct evidence, of their spontaneous production. We do not pretend, to deny the fact, of Entozoa having been discovered, in the foetus in utero, as we have satisfactory evidence, in the declarations of the following creditable authors to that effect.

Kerkringius, relates his having seen the Ascaris Lumbricoides in the intestinal canal, of a seven months foetus, and, in another instance a great number of small worms in the bowels, of a new born infant; Tommasini, saw the Distoma Hepaticum, in the liver of the foetal lamb. Heim, also discovered, Teniae, in the new born infant; and, was it necessary, many other similar cases, which are recorded, might

be adduced. But, although this extraordinary occurrence, may be considered, by some, as amply sufficient, to cause us to relinquish our ideas of regular generation, as regards intestinal Entozoa; yet, I think, it would be unwise in us, to desist in our endeavours, to devise some more probable method, of accounting for this remarkable fact, than by the ancient, though very irrational theory, of spontaneous generation. For were we to admit, that such animals, as the Ascaris Lumbricoides. Trichocephalus Dispar or Oxyuris Vermicularis and many others, whose structure, is so complicated, and at the same time complete; being endowed, according to Anatomists, with a head; stomach, and intestines; skin, muscles, circulatory and nervous systems, and evidently well developed, genital organs, and of distinct sexes, were the product, of spontaneous generation; to what extent, might not the theory be pushed? If the adventitious arrangement

of particles of inanimate matter, or any alteration of mucus or heat, resulting from Gastro-Enteritis (that all comprehensive term in Pathology) which opinion, has been advanced, by Broussais, but, which, is as I conceive entirely assumed, being unsupported, by arguments either from analogy or experiment, and consequently unworthy of credence, be capable of assuming to itself, the creative power, and producing animals regularly and perfectly formed, of various species and forms - occupying different situations, of different habits, and enjoying an independent existence, such for instance, as the above mentioned; whose organization, when compared with that of other animals, which hold a determinate place in the Zoological scale, and are known to be the product of regular generation, will be found equally complete: why, should not, similar dispositions of different kinds of dead matter, be capable of assuming the different forms, of the various species of animals.

did they not possess genital organs, and did they not copulate, as other animals, then, there, surely would be some room for speculation, but, in the absence of proof to the contrary, it would be more wise in us, I think, to confess our ignorance, than adopt such an irrational theory, as that of Spontaneous generation. But, since we are satisfied, that they are perfect in this respect, and are known to copulate, I cannot imagine, how we can arrive at any other conclusion, than, that they are generated, after the same manner, as other animals occupying a higher situation in the scale.

After having thus in a cursory, and very imperfect manner, examined some of the principle arguments, which have been adduced, in confirmation of the doctrine, of equivocal or Spontaneous generation, as applied to the production of intestinal worms, we cannot avoid acknowledging, that so far, our reason tells us, that they are exceedingly feeble and unsatis=

=factory.

Although the advocates of the more rational, as well as, more generally received maxim, of Omne animal. ex Ovo, or theory of regular generation, do not differ in opinion, as regards the manner in which Entozoa re==produce their species, still, there appears to be a contradiction with respect to their origin. It is the opinion of one class of Physiologists, that intestinal Entozoa are not natives of the human body, but, that the ovules or germs, from which, they are produced, are derived from without; that they are accidentally taken into the stomach, together with the food, or drink, and there finding a situation, congenial to their development, live and propagate their species. They assert in proof of their position, that worms in every respect similar, to those which infest the human body, have been discovered in various situations external to

the body:- for instance, it has been affirmed by Linnaeus and others, that the Taenia Solium, though much smaller than usual, has been found in muddy springs; that the Distoma Hepaticum has been seen in fresh water, and the Ascaris Vermicularis among the putrescent roots of vegetables. Other cases of a similar character might be related, but we deem it unnecessary, since more, modern writers on this subject, on whose credit we can rely, have satisfactorily ascertained, that the worms, which have been discovered out of the body, differ very materially from those, which in habit the intestines of human beings, both in structure, and habits.

Moreover, was the statement, of their having been found external to the body, correct; we would naturally suppose, that they would be so numerous as to frequently come under our inspection; which, we know to be not the case. Still stronger argument in disproof

of this opinion, is, that, were they derived from the earth, they could not subsist for any length of time in the intestinal canal; between which two situations, there is in every respect such entire disparity. As to the changes in organization and habits, which it is said, may be wrought in animals by change of food, locality, and other modifying circumstances, we in a limited degree admit; but we deny that the influence of habit is so powerfull, (as it must be if their arguments be correct,) as to entirely deprive them of the power of resisting the influence of agents, which by nature they are accustomed to: for example, there is no fact, with which the most of us are better acquainted, than that intestinal worms when submitted to the influence of the atmosphere, immediately expire. After having knowledge of this fact, can we reasonably suppose, that were the earth or water, their natural place of abode, that an

exposure to them would be so suddenly destructive to their lives? Do for myself, I think not. We therefore adopt the view which seems most rational, that is, that Entozoa, are animals peculiar to the body, being very dissimilar in many respects, to those, which have been discovered in the water or on the earth.

The fact of intestinal Entozoa having been found in the foetus in utero, as before cited, is the strong hold, of supporters, of the doctrine of equivocal generation, in support of their opinion. This is an extraordinary phenomenon, we must confess, when compared with the order which prevails in the development, and continuation of the species, among the higher classes of animals. — But, if we reflect for a moment, and consider that we are noticing a class of animals, whose circumstances in many respects, are totally different, from those of animals higher in the scale; we can but expect, to find them dif=

-fering also in many particulars from them, in the manner of preserving their species.

That the germs, from which these Entozoa are generated, must by some means be conveyed to the foetus, we cannot for a moment hesitate to believe; and as there are no other channels of communication between the mother and foetus, except the circulatory and absorbent systems of vessels, by which they could be conveyed; and, as we have denied that Entozoa are spontaneously produced, or that the ovules, or germs, from which they originate, are derived from without; we arrive at the conclusion, that they are natives of the body, and that every intestinal Entozoa, with which human beings are harassed, is produced by a germ, the product of copulation, which is sufficiently minute, to pass through the organs of circulation and absorption; that through these channels, the germs of Entozoa of various species, and occupying

different situations, must be transmitted, from the female parent, to her children, during foetal life, and, in this manner, is the species preserved. But, this opinion, may be thought liable to objections, on the ground, that if this was the case, we should have Entozoa more frequently occurring in the foetus, than they actually do; but this can be easily accounted for, because, that pathological condition spoken of by supporters of spontaneous generation (and with whom we so far agree) as being essential to the production of Entozoa, is of so rare occurrence, as and seldom to give rise to their development.

That certain pathological conditions of the system, are necessary to their development admits of no doubt; for it has been I think satisfactorily proven by experiments; for instance, Salt is an article, which seems to be essential to the health of all human beings in moist climates; without it, the body

becomes infested with Entozoa.

In Holland it was the practice to deny salt to criminals, in consequence of which they became very much infested with them. A case also is related in one of the Medical Journals, in which a lady having great antipathy to salt, was largely infested with these parasites.

This goes to prove that the perfectly healthy performance of the functions of the body, is incompatible with their production. There are only certain conditions of the system that favour the generation of these animals; with the essential nature of which we are entirely unacquainted. Like the seeds of plants, which remain imbedded in the earth for centuries without undergoing change, untill brought within the sphere of the vivifying influence of the sun, they remain in the state of germs, untill they encounter causes, capable of producing the being.

The concise and perhaps imperfect

view, which I have taken of this subject,
like all others which have been advanced,
is in a considerable degree hypothetical, but
in the main, is supported by analogy, which
can by no means be said of the others —

An
Inaugural Dissertation
on
Erysipelas.
Submitted to the examination
of the
Provost, Trustees,
and
Medical Faculty
of the
University of Maryland
for
The Degree
of
Doctor of Medicine
by
Thomas A. Healey
of
Baltimore
1835.

To Richard Wilmot Hall M. D.

The following pages are respectfully inscribed, as the fruits of a medical education, conducted under his care and direction, and as a testimony of gratitude for the many valuable opportunities of improvement received by his friend and pupil.

The Author

Erysipelas.

Erysipelas may be called an inflammation of the skin, either alone or combined with that of the subjacent cellular tissue; and it generally accompanied with vesicular eruptions, the local inflammation being generally attended with symptomatic fever.

The various forms of Erysipelas depend on the degree of the local inflammation, on the type of the accompanying fever, and on other circumstances with which the case may be complicated.

Causes. It is very difficult in most cases to find out the exciting causes of this disease. When it occurs in apart from an injury we have at once a probable reason for the surrounding parts assuming this inflammatory action; but some other circumstances must operate in those instances as we do not have this inflammation following external injuries in every case.

There is in many persons an hereditary or acquired predisposition to inflammation of the skin from the most trivial causes; in such I have no doubt there is some peculiarity in the

vascular system of the integument, and any cause which will excite the circulation locally or generally, may give rise to Erysipelas.
It is often produced by Gastric derangement, and from the intimate sympathy between the skin and mucous membrane of the stomach and bowels, it may become both the predisposing and exciting cause; especially if there should happen to be a susceptibility to this disease.
Derangement of the Liver will occasionally induce an attack of this disease — Dr. Potter mentions a case of this kind of a lady who lived in a miasmatic district, and had an attack every spring and fall — she was at last cured by mercury carried to a slight ptyalism & has not had an attack since. — The irritation of the skin produced by an attack of Erysipelas will frequently induce sympathetic disorder of the Biliary & Gastric System.
It is said that spring and autumn are the seasons of the year in which it is most prevalent; this I suppose to be in part owing to the vicissitudes of temperature in these seasons producing irregular capillary action.

Women at the cessation of the menses and old persons of a cachectic habit of body are liable to periodical attacks of Erysipelas; it is generally preceded or accompanied in these cases by symptoms of derangement of the Liver stomach and intestines, but without much fever.
The patient in establishments for the sick are very liable to it, and when it once appears in the wards of an Hospital it is exceedingly difficult to keep it from spreading, it will very often in such places be produced by the slightest wound operation or irritation of the skin; as for instance from the wound made by a lancet in bleeding, or by that of a scarificator from cupping, or the margin of a blistered surface: three or four cases of which I have seen in the Baltimore Infirmary. One of the most severe and fatal cases I ever saw, occurred in a boy in the Infirmary from the division of the prepuce he was seized with Erysipelas five days after the operation, and although treated with great skill by the physician in attendance, he died on the morning of the fifth day after the disease

made its appearance.

It sometimes occurs spontaneously on different regions of the body without any cause that can be assigned for it there being no external wound.

It may also arise from pressure, the continued use of a bandage, laying in one position for a long time, & frequently stimulating applications to ulcers produce it: several cases of which have come under my notice.

Varieties. I shall describe three forms or varieties of this disease — The Simple, the Phlegmonoid, and the Oedematous Erysipelas.

Simple Erysipelas. This is the mildest form of the disease, the inflammation here is confined to the skin, which is hot, dry, smooth, red, and shining; the color varies from a deep scarlet to a yellowish red hue. The swelling is very inconsiderable in this form of the disease, so much so indeed as in some cases to be scarcely perceptible. When the inflammatory action is of a higher grade, effusion takes places in the cellular tissue beneath, and when this occurs, the swelling is proportionably increased. The pain is of a pungent burning kind, very different from the throbbing sensation experienced in a phlegmon, and is greater or less according

to the intensity of the local disorder. From the fourth or fifth day after the appearance of the disease, vesications form on the inflamed skin, and after this the pain begins sensibly to diminish. The vesicles are sometimes numerous and small, and at others large, and in a few days either break and discharge their content, or dry and are converted into yellowish scabs which after a time fall off; sometimes leaving the skin entire, and at others abraded; and occasionally the inflammation goes off without vesication.

In some instances it disappears suddenly from one part, and makes its appearance in another, and will occasionally travel in this way over the whole body. When it manifests this disposition it is denominated Erratic, and must then be closely watched, as it sometimes attacks the brain or some of the viscera, & is followed by symptoms indicating disease of those organs.

Phlegmonous Erysipelas. The inflammation in this form of the disease attacks the skin and cellular tissue adjoining it, and frequently terminates in suppuration and sometimes in sloughing of the parts affected. The young and vigorous are mostly attacked with this form of the disease, it also occasionally attacks

persons of advanced age, but its progress is longer and the inflammatory symptoms no so violent in old persons. The extremities are the parts most frequently affected with this form. In all the cases of this kind that I have witnessed has been preceded a day or two before by symptoms of high inflammatory fever – the patient is seized with a chill which generally continues about an hour attended with nausea and vomiting, this goes off and he is attacked with pain in the head back and limbs; the skin is hot and dry, and the tongue is coated sometimes white and at others yellow, the pulse is quick tense and frequent: after these symptoms have continued from one to two days the local inflammation makes its appearance, and this is the first thing that acquaints us with the nature of the disease we have to contend with. The skin becomes slightly redden redness, and an effusion takes place into the subcutaneous cellular membrane, this form spreads very fast, the redness of the skin becomes of a deep red tint, accompanied with a sensation of burning heat which is almost intolerable. The redness disappears on pressure but reappears again as soon as the finger is taken off the part. The disease generally goes on for five or six days, when desquamation

begin to appear, and the desquamation of the cuticle takes place, as it ends in the the same manner as simple Erysipelas. The redness begins to decline, the skin assumes a yellowish hue, the swelling gradually subsides and the fever abates.

But this form of the disease frequently terminates in suppuration and sometimes in gangrene, instead of the favorable manner stated above. When suppuration takes place the matter is either confined in abscesses or diffused in the cellular tissue. If Gangrene takes place the cellular tissue becomes completely disorganized, and looks like tow filled with a purulent fluid, while the integuments deprived of their supply of blood, become livid and often lose their vitality. Two Cases of this kind I have seen at the Infirmary in the Spring.

When these changes take place in the former the tension gives way, and the part has a softness which I cannot exactly describe.

Oedematous Erysipelas. This form may be called intermediate between the simple and phlegmonoic, and is mostly observed in those persons whose constitutions are impaired, and have a tendency to dropsical effusion. The inflammation is of a subacute character, the skin is of a pale dirty red color, smooth and shining, the heat and burning sensation is not so severe as in the

phlegmonous form, and on pressure it feels like the swelling produced by edema. This form is liable to end in gangrene, which may be known by the redness changing to a dark livid hue, and by the cessation of pain.
The danger from Erysipelas is much greater when it attacks the face and scalp than on any other part of the body. This arises from the brain or its membranes becoming involved in the disease. This is supposed to arise from the fact that the capillary vessels and cellular tissue are in part continuous with those inside of the walls of the Cranium. I have seen inflammation of the scrotum in three instances, the brain was affected from sympathy in all those cases, and is much more dangerous than when it attacks the trunk or limbs.
Diagnosis. The rosy hue of the skin, the burning pain, uniform swelling, the tendency to spread, the abrupt and irregular border, and the tendency of the disease to suppurate, will easily point out its nature and distinguish it from phlegmon.
Treatment. The treatment of this disease is divided into general or constitutional and local.
In the treatment of simple Erysipelas the bowels are to be kept soluble by light aperients, attention

ought to be paid to be paid to the part on which it occurs, and not let it be in the depending position. Scarifying and applying warm fomentations to the part, will be found to be all that is necessary.

The Phlegmonous Erysipelas is the most acute form of the disease both as regards the local inflammation and the fever accompanying it.

Bloodletting – In general bloodletting is indispensable, and particularly if it should happen to occur in the face & scalp – blood must be taken largely and repeatedly, until the symptoms of cerebral affection are removed, both general and local – Leeches are very useful when it attacks those parts – a cooling lotion applied to the scalp will also be of great benefit.

Active purgatives, emetics, abstinence, cooling drinks and perfect quiet, are the remedies to be used in the begening of this form of the disease. This is the treatment to be used to be used with the young and plethoric in the first few days, and when the local and general excitement is such as to allow its being pursued. When it occurs in weak and aged individuals, this treatment would be very injudicious. Local depletion may be used

with great advantage in such cases with cooling applications, whilst we at the same time sustain the powers of the constitution by nourishment and tonics, and also keeping the bowels open.

The active constitutional treatment ought generally to be restricted to the first five or six days of the disease, as the system in that time begins to show signs of impaired energy - if it does not and the inflammatory symptoms continue, this treatment must still be pursued.

Scarifications with the lancet - I have seen more benefit from this, than from all the other remedies combined; it is suited to nearly all the stages of this disease before suppuration or gangrene takes place. if either should occur - it will do more than any other remedy to prevent either of these occurrences. I have seen it in several instances put a stop to the progress of the inflammation in one night - it gives immediate ease to the patient by relieving the congested vessels and the distention of the part, and also by the stimulus which the knife imparts. There should be a warm head and milk poultice applied to the part immediately after the incisions have been made,

as it keeps up the flow of blood and impart to it a soothing influence which is very grateful.

When suppuration occurs an incision should be made to give vent to the fluid, for if left there it will create a great deal of irritation and finally make an ulcer in the part.

When the disease terminates in gangrene, the patients must be supported with tonics, stimulants, and a nutritious diet, and the occasional exhibition of mild aperients.

The treatment of the Oedematous Erysipelas is nearly the same as that pursued in the simple form of the disease.

The swelling that remains after Erysipelas is to be treated by the application of the bandage.

An
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on Anatomy
Submitted to the
Board of Trustees and Faculty
of the
University of Maryland
for the degree
Doctor of Medicine
by
Mary Thomas Gilmer of Virginia

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An

Inaugural Dissertation

on Phrenology

Submitted to the

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for the degree

of

Doctor of Medicine

by

Peachy Harmer Gilmer of Virginia

1835

It is now generally admitted that the central portion of the nervous system is the organ of intellect and sensibility. Injuries done to the brain and the action of narcotics, producing their deleterious effects on the healthy action of the mind prove this most incontestably. If then the brain be the organ for the operation of the intellect, the enquiry very naturally suggested itself whether the dimentions of the head would not be a just criterion for ascertaining the extent of the mental powers. On this hypothesis were founded the Norma Verticalis of Blumenbach, the occipital angle of Daubenton, and the facial angle of Camper. These various methods recognised the brain as one organ, single and independant, through the instrumentality of which the phenomena of thought are brought into existance. But many physiologists pushing their speculations still farther now contend that the brain consists of a plurality of separate and distinct organs, equal in number to the primary faculties of the mind. In other words that each faculty of the mind has its own portion of the brain through the medium of which it performs its action. And they maintain moreover that the existance or non existance of these organs is indicated

by depressions or elevations on the cranium, and that by these developements the disposition and traits of individuals may be judged. This constitutes the Science of Phrenology, the rudiments of which were known in remote antiquity and received the sanction of the bright genius of Aristotle. But it is to the labours of Gall, assisted by his colaborator Spurzheim, whose recent death the science of Medicine and particularly that part of it connected with minute dissection, has to deplore, that Cranidogy is indebted for its claim to be ranked as a Science. A man of observation and reflection, which he attributed to peculiar organization, his attention was at an early period arrested by the fact that the various shapes of the heads of his fellow students were invariably connected with certain moral and intellectual endowments. After the interval of many years entirely devoted to this subject, he came to the conclusion and endeavoured in a ponderous work of 6 Volumes Octavo to establish the opinion that the brain consists of a congeries of organs each acting in its own sphere and scarcely associated with the rest. Are these views of Gall correct, or shall we regard them as mere chimeras of the imagination

and the monument of the misapplied talents of men calculated to be ornaments of the profession. Does the brain consist of a plurality of organs? One argument urged with considerable confidence to establish this position is, the feeling of relief we experience after long study in changing from one study to another. This relief arises it is said from the fact that a new organ is brought into action and the fatigued one allowed to repose. But let us apply this reasoning to other organs and see to what conclusion it leads. The eye it is well known after gazing at a brilliant object, such as the sun, is dazzled and fatigued, and obtains immediate relief in resting on milder colours. And it is acknowledged by all who have for a length of time heard the same monotonous note, that much delight is afforded by the melody of different tunes. In the eye then a change from one colour to another and in the ear from one sound to another afford relief. And if the argument be valid with regard to the brain to prove the existence of many organs, according to the rules of all just reasoning we may apply it to the organs of sense and prove that every man has as many eyes, ears, tongues

and noses, as there are different colours, sounds, tastes, and odours; a multiplicity of appendages by no means convenient for the small area of our faces. If this reasoning is logical, leading as it does to the reductio ad absurdum, we may reject the argument of relief experienced by a transference from one employment to another, used to prove a plurality of organs in the brain, as impotent and unsubstantial. A second argument is the partial loss of power either from disease of the brain or accident. Now if this partial loss existed in different faculties it would be an argument of weight, but most frequently it is found in the same faculties. A remarkable case is upon record, of a young lady who after the illness attending her first delivery forgot her marriage and every event that had taken place since that time, even the birth of her child, while her memory was distinct as it regarded every occurrence prior to her matrimonial union. Here the partial loss of power was in the same faculty (Memory) and if it prove any thing it is this; That every idea has its organ, and that there are as many organs as there are ideas, which if true would go very far in demonstrating the infinite divisibility of Matter and a number of organs far exceeding the 27 admitted by Gall

The advocates of Cramiology contend that the brain being Symmetrical has two organs for the same faculty, one in each hemisphere. These organs are seperate and distinct; and hence not limited in their operation by each other. It will not be astonishing that things diametrically opposite and irreconcileable should occur. It will not surprise us if an organ on one side of the Cerebrum makes us believe, while its neighbour organ in an obstinate humour, on the other side makes us disbelieve at the same moment. And it proceeds from nothing but the impulse of organization and the physiological action of the various and discordant organs in the brain that we behold the melancholy spectacle of a statesman at one time full of patriotism, sacrificing every private consideration to national prosperity and at the very next minute forgetting his responsibility and bartering his country's honour and happiness for gold. Moreover according to the admission of the founders of Cramiology each organ is sepperate; without any federal compact or union with the rest: And each being sovereign, and independant, every one of the 27 organs should be able to perform its function at the same time. And nothing would be more rational and successful than the attempt to solve the problem relating to the Square of

the Hypothenuse, so abstruse that the philosopher who first demonstrated it from excess of joy is said to have sacrificed a hecatomb, and at the same time to compose a ditty on the charms of female loveliness. To exercise the faculties of reason, fancy and wit, and to be gay and melancholy, benevolent and malicious at the same time. But the most formidable argument that can be urged against Phrenology and one which by destroying the very facts on which the advocates of cranioloqy bids fair to demolish the fabric which ingenuity has erected, is founded on appearances presented by the morbid anatomy of the encephalon. There is scarcely an organ near the periphery of the brain which has not been impaired or obliterated without affecting the moral or intellectual character to any appreciable extent. Is not this totally incompatible with the supposition, that there are numerous organs in the brain and that for the due apposition of the faculties of the mind their integrity is absolutely necessary. Even the Cortical part of the brain has been removed and no injury done to the intellect and yet according to Gall and Spurzheim this portion of the brain is the exact locality of the organ of intelligence. This fact utterly subversive of the whole theory which these gentlemen spent their lives and

exerted every nerve to establish has been denied. It required but little sagacity to see that if uncontroverted this fact would demolish their favourite system, and departing from that candour which usually characterized their conduct, they have denied it both in detail and the abstract. To prove the fact however we may refer to many cases enumerated by Haller and in the Manchester transactions. An argument drawn from the phenomenon of Monomania, has been urged with considerable force to support the Phrenological System. Such an instance is mentioned by Lord Erskine. This individual believed himself the Saviour of the world and hence it is concluded the organ of Theosophy or Religion was diseased while the other organs were in a healthy state. It appears to me that the same argument which I used with regard to the person whose memory was treacherous and faulty on one subject but not on others, applies in full vigour to this case. The belief in the absurd notion that he was the Son of God, must have proceeded from some deep, irremediable injury of the reasoning faculty. This department of the mind was deranged. We find however that he was not defficient in judgment or reason on other subjects, on the other hand he was remarkably shrewd and subtle, so as to baffle the efforts of the most acute

council to detect his insanity. From this it follows, either that there is a seppperate organ for all our ideas, extending as they do to infinitude and that the great organ of reasoning is subdivided into as many tributary organs as there are different faculties of the mind brought into exercise during the investigation of any subject requiring a chain of reasoning. In other words- That these organs are infinite as the ideas of the mind, over which they preside, are infinite and put enumeration at defiance: or it follows that a part of an organ may be morbid and not affect the neighbouring part of the same structure. That while the organ of reasoning was diseased so much in one part as to lead to chimerical and irrational conclusions, a part in immediate proximity may be perfectly exempt from disease and have its function uninfluenced. This fact is contrary to all analogy in the rest of the system and utterly opposed to all we know of the doctrine of sympathy. It seems to me then that this argument is untenable. Another argument of much plausibility in favour of Craniology, is derived from injuries done to the skull, producing certain effects on parts over which they appear to exercise controul. Let us take the Cerebellum the organ of the instinct of generation. This according to Gall and

Spurzheim is the organ which creates the distinction of sese and occasions venereal excitement. The reasons for this opinion are familiar to us all. One of them is drawn from the fact that injuries done to the Cerebellum always affect the organs of generation. But does this establish the truth of the proposition that the Cerebellum is the organ of reproduction? Extend the proposition to other parts and again wile we multiply and extend the number of these organs without limits. It is well known that injuries done to the brain produce vomiting and may we not conclude from the same evidence that Gall had to prove an organ of Amativeness, that there is also an organ for this purpose. A blow on the Cranium excites vomiting therefore it follows there is an organ for vomiting. But cannot the connection which exists between the Cerebellum and the sexual passions be explained on different principles. Anatomical researches demonstrate that a great number of nerves take their origin and are distributed, from the immediate vicinity of the Cerebellum. These branch out over the body and anastomose freely with the ramifications of the rest of the nervous system. The nervous system it is acknowledged is necessary for the function of every organ

If then so important a part as the Cerebellum be injured is it surprising that other parts should sympathise with it and be impaired in the due performance of their function? It is just what a priori we would expect. We may attribute, then, connection, then, between the Cerebellum and the passion of venereal love to the action of the nerves which proceed from it and are indirectly united to other parts, or we may own our ignorance, a resort to which physiologists are frequently driven and which in fact constitutes no opprobrium to the profession, for it is said to be the summit of wisdom to know how little can be known. We may own our ignorance and say it results from some mysterious sympathy with which we are totally unacquainted. But admitting the truth and correctness of Craniology what would be its effect upon the morals and intellect of the world? According to the popular opinion which considers the brain as the great central organ for thought, one and entire and which by due culture can be so modified as to give birth to faculties, which otherwise would never have been awakened from their torpor. Education is the most powerful lever which can add vigour to the mind. A regular and judicious accademical dicipline to a congenial soil is often

followed almost by magical results. Where there was previously mediocrity it confers eminence, Modifying, invigorating, almost creating and intellect anew. According to this view then education is of incalculable benefit. But if on the contrary the facts maintained by Phrenologists be legitimate, if there be a plurality of organs, of what efficacy is education? It sinks in comparative insignificance. For if a certain organ, say for instance that of reasoning, be not developed, how vain and cruel is the attempt to instile into the mind any proposition dependant upon cause and effect. If the organ by which the mind comprehends abstract truth be wanting the attempt to acquire this species of knowledge is futile. If the organ of fancy be deficient then no cultivation will ever enable us to relish and admire the sublime and eloquent strains of Ancient or Modern poetry. So too with regard to morals, the same reasoning is applicable, the same effects follow. Drs. Gall and Spurzheim do not show that there is any mode of amplyfying or diminishing any organ of the brain If then the organ of theft be prominent no attention, no punishments will prevent a series of thefts. Punishment acts on a different organ (Pride) and leaves the organ of theft uninfluenced. On the other hand if the organs of benevolence, Piety &c. be well

developed the happy youth is in no danger of corruption or vice, no matter if he be surrounded by every species of depravity. What to him is the Stealing, Swearing and vice of his companions? Is he not secure from the influence of bad example, for has he not his organs of Benevolence fully and prominently developed? And is not this a panoply to protect him from every assailant? Thus it appears that the doctrine of Cranioloogy runs counter to the most universally acknowledged system for the amelioration of Mankind. How scrupulous should we be then in subscribing to the truth of a new hypothesis which may be replete with serious mischief.

But while I profess my unbelief in the doctrines of Phrenology, it must be admitted that Gall and Spurzheim, like the Alchemists of olden times, while in persuit of a fact which they cannot establish and which if they did would be of no practical importance to the world, have casually conferred much benefit to Medical Science. They were men of genius and erudition and by their minute attention to the brain and their elegant dissections have elucidated the anatomy of that organ and consequently contributed much to the scientific treatment of Cerebral diseases

To

John Mayo M.D of Virginia

Distinguished alike for his

Medical attainments

Philosophical researches

and

Chemico-Agricultural Investigations,

this Inaugural Dissertation

is respectfully dedicated

by his friend & Servant

R. H. Gilmer.

An

Inaugural Dissertation

Upon

Delirium Tremens

Submitted to an Examination

of the Provost, the Trustees, and Faculty

of the

University of Maryland

by

William M. Watkins.

For a Degree

of Doctor of Medicine.

A. D. 1835.

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A Thesis

Inaugural Dissertation

Upon

Delirium Tremens

Submitted to the Examination

of the Board. Constituting the Faculty

of the

University of Maryland.

for

the Degree

of Doctor of Medicine.

A.D. 1836.

Delirium Tremens.

In the whole catalogue of human maladies there is none produced from causes more derogatory to the dignity of human nature, or more fatal to the moral or intellectual faculties of man, than the horrible mental generation that ~~in the~~ frenzies and wandering death which is almost the sole cause of the disease now under consideration.

Delirium Tremens or Drunkard's Fits is a mental disease, and occurs only in habitual drunkards and in such as are addicted to the inordinate use of opium and perhaps other narcotic stimulants. And as the result not of the application but of the sudden cessation or termination of the use of these articles. So long as the system is kept under the influence of its customary quantity of stimulus the disease seldom if ever appears: but if from necessity, sickness, from fancy, disgust or from some laudable and praiseworthy motive the temperate or intemperate should suddenly abandon the use of his ordinary stimulating potations or

Delirium Tremens.

In the whole catalogue of human maladies, there is none produced from causes more derogatory to the dignity of human nature, or more fatal to the moral and domestic happiness of man; than the beastly indulgence in that ~~in that~~ pernicious and inebreating draught, which, is almost the sole cause of the disease now under consideration.

Delirium Tremens. or ebrania a Potu, is a mental disease, and occurs only in habitual drunkards. and in such as are addicted to the inordinate use of opium, and perhaps other narcotic stimulents. And is the result not of the application; but of the sudden intermission of the use of these articles. So long as the system is kept under the influence of its costomary quantity of stimulus ~~the~~ disease seldom if ever supervenes; but if from necessity, sickness, temporary disgust, or from more laudable and praiseworthy motives, the unfortunate victim should suddenly abandon the use of of his ordinary stimulating potations, or

greatly

Delirium Tremens.

In the social categories of human maladies, there is none produced from causes more obvious to the dignity of human nature, a more fatal to the moral condition of the mind of man: than the habitually intoxicating drink, which is almost the sole cause of the diseases now under consideration.

Delirium Tremens, or Drunk a Poke, is a mental disease, and occurs only in habitual drunkards, and is due to an addicted to the inordinate use of liquors, and has been called moralistic alcoholism. Hard is the result of the application; but of the accidents in transgression of the rules of those addicted.

So long as the operations in right manner the influence of its customary quantity of alcoholic stimulus: but if from negligently, accidently, inadvertently disguised, or from more favorable and unfortunately motives, the usual stimulus attended accidentally adulterates the use of his ordinary stimulating potations, greatly

greatly diminishes its quantity. The activity of the brain becomes morbidly increased and mental disorder often speedily ensues.
It is not my object in this dissertation to unlock the box of Pandora, and exhibit to the world the exhaustless train of evils consequent upon too close a relationship with the bottle. Yet I cannot, even, upon this occasion, refrain from expressing my deep abhorrence of a practice, which is of itself so prolific a source of disease, as well as of vice and immorality. But I must have done with this digression, and detail the morbid phenomena it is capable of producing in the development of a single disease.

Delirium Tremens — or Mania a Potu — is a mental disease, as I have already stated & is characterized by general inquietude, tremor, continued watchfulness, cool skin and sensorial illusions.

The disease is usually ushered in with lassitude, general indisposition, a feeling of distress in the epigastrium, anorexia, nausea and vomiting, giddiness, a sense of

confusion

Infinitesimal Measurement

greatly diminish the probability of the actuality of the Cosmic Measure, particularly Measurement and Insulation of the Physical Measure.

It is not my object in this Publication to unfold the Law of Measurement and Insulation to the world, the mathematical Laws of such Measurement upon the Plane of Relationship with the Physical Measure and upon the Cosmic Measure, Laws which are supposed to be the Laws of Measurement, and which are the Laws of Measurement. Hence I must leave these matters alone. And therefore the reader is left to the Measurement which is capable of producing the Measurement of a single Cosmic Measure.

Infinitesimal — a Cosmic Point. is a measured distance, as I have already stated, it is characterized by general measurement, between particular Measurement and Measurement illusions.

The distance is usually measured in such Infinitesimal, general measurement, a point of distinct in the Measurement, measures measure and measurement particular distance

in the head, want of sleep, anxious expression of the countenance, and tremor of the hands. After one or two days the eyes are thrown about with quick and scrutinizing glances, or often fixed, apparently upon some object that attracts the attention for a moment, and then quickly withdrawn; the countenance exhibits an expression of alarm and suspicion; the tremor of the hands increases: the patient becomes irritable, and sometimes irascible; he is extremely restless, walks continually to and fro, and is wholly unable to obtain a moments sleep. He now begins to manifest mental disorder, becomes loquacious, says he feels well, & is tormented with more or less continued succession of various alarming, disgusting, and ludicrous apparitions. At fancies he sees dogs, toads, snakes, and other animals in his room, or that persons have entered his room for the purpose of robbing, killing or anoying him. To avoid these and other horrid illusions he calls loudly for assistance; trys to escape

Wilderness Dreams.

In the woods, world of sleep, conscious reflections of the countenances and forms of the dead. Before me I see the eyes and features alert with quick and vivid meaning, a polite friend, affectionately urges some object that attracts the attention for a moment, and then quickly vanishes: the countenances exhibit an expression of alarm and surprise; the forms of the dead appear: the distant become visible, and sometimes invisible; he is extremely restless, walks continually to and fro; and is little by unable to attain a moment's sleep.

He now begins to wonderful mental distress becomes depressed, says he feels weak, is tormented with more or less continued apprehensions of imminent alarming, disparaging and lurid visions of fantasies. The feeling he has day, tomorrow, another, and other wonders in his room, a that persons have entered his room for the purpose of robbing, killing or assaulting him. He dreams these and other horrid illusions he really believes for afterwards; hope to escape

through the door or window; is greatly agitated, vociferates, threatens, and sometimes raves viciently. Often calls to imaginary persons, starts with terror from the presence of frightful and disgusting apparitions, insists that he is well and confined with some sinister intentions against him. If he is flatly contradicted, he usually becomes much exasperated, and vehemently insists on the correctness of his opinions. When the disease rises to a high grade the patient becomes viciently and furiously delirious, talks incessantly, and is unable to recognize his friends and acquaintances. It is said by writers upon this subject that persons labouring under Mania a Potu do not appear to be susceptible of much bodily pain. "They never seem to suffer any inconvenience from fractures, though they may at the time be subjecting these to the most constant friction and concussion; and when the disease supervenes upon a pleurisy, or other inflammatory affections with pain; the principal disease seems to disappear, to

be

Through the blood is carried, as already stated, food for the tissues. The tissues, and consequently the cells, to remain healthy, must receive from the blood the proper quantity of nutritive material, and must be free from the presence of injurious substances. If the blood contains the nutritive material in a form not suitable for assimilation, or if it contains substances which are not destroyed by the tissues, or which are injurious, the cells will not receive the proper nourishment, and will be injured, or perhaps destroyed. The blood is also the medium by which the tissues are relieved of the products of their activity. The blood carries these products to the organs of excretion, by which they are removed from the body. If the blood be not properly purified by the excretory organs, the tissues will be injured, or perhaps destroyed, and in consequence the organs will be unable to perform their functions properly. The blood carries also the germs of many diseases. Thus, if the blood be not properly purified, it may become a fertile soil for the growth of many kinds of disease germs. Many germs seem to require some particular tissue, through which they can alone be distributed. Thus, the germs of the tissues for distributing them to the most convenient place for their growth; and

to be reproduced at a subsequent period when the brain and nerves regain their ordinary tranquility."

The pulse in different cases of the disease is exceedingly variable, in some instances it is hard, full and frequent, but much oftener, soft, full, and quick without strength or tension. The bowels torpid, and there is usually a loathing of food, but the thirst for cold drinks is always considerable, the tongue turnid and covered with a white fur, and the skin retains its natural temperature and moisture

Delirium Tremens in different cases varies much in respect to its duration and degree of violence sometimes some of the minor symptoms of the incipient stage of the disease will appear for a day or two and then pass off. At other times symptoms of a more serious nature will develope themselves and continue for five or six days, with delirium and annoying apparitions at night, whilst during the day, but little mental

Delirium tremens.

to be represented at a subsequent period with the brain and nerves in their ordinary healthy state."

The pulse in different cases of the disease is exceedingly variable, in some instances it is hard, full and frequent, but more often tense and full, and quick without being strong or tortuous. The tongue is furred, and there is usually a loathing of food, but the thirst for cold drinks is always considerable. The tongue, however, and usually with a white fur, and the skin retains its natural temperature and moisture.

Delirium tremens in different cases varies in regard to the duration and degree of violence, some times some of the minor symptoms of the incipient stage of the disease will appear for a day or two and then disappear. At other times symptoms of a more serious nature and alarming character and continue for five or six days, with delirium and varying appearances of mind, which during the day, but little varied

hallucination can be observed. In some cases the disease continues for weeks and upwards, and assumes the character of wild and ungovernable mania.

In some rare instances this disease has been known to terminate spontaneously, on the supervention of diarrhea or vomiting. But these discharges if profuse are apt to bring on a low and typhoid condition of the system, particularly in the broken down constitutions of old and confirmed topers. In full and robust habits the disease has not unfrequently terminated in fatal convulsions or apoplexy. —

Pathology. — As regards the pathology of this disease a successive variety of opinions have been advanced & promulgated by different authors, and apparently with equal plausibility. It is not my intention, however, to trace upon these sheets the different opinions that have been entertained and palmed upon the credulous student as regards the nature and pathology of mania a Potu. Suffice it to know that the opinions of the ancients, like the reputation of their authors, flourished for a while in brilliant but fungus luxuriance,

them faded and gave place to the more substantial and correct principles deduced from experience and observation. Yet even in the present period of enlightened medical science a diversity of opinion exists amongst the faculty as regards the morbid physiology of this disease. But the weight of experience appears pretty generally to ascribe the primary & essential focus of irritation to the sensorium commune. And some of the best pathologists on the subject - say, "that the proximate cause of the disease is wholly independant of inflammation or vascular turgescence in this organ" The disease seems to consist in a morbid activity of the brain, from the sudden abstraction of an habitual stimulant, by which its excitability had been long repressed or blunted, or perhaps by breaking in upon the regular and habitual performance of its functions, produced a new action upon the nervous system, incompatable with the health of the individual; and giving rise to the peculiar & characteristic symptoms of this disease. Doctor Coats considers

it "as consisting in a heightened activity of the sensorium", from the generation as it would appear of an inordinate degree of vital activity in the brain; and similar views of the nature of the disease have been expressed by Dr Robinson and many other eminent British Physicians. Some physicians agree with a degree of plausibility to: that the proximate cause of the disease is located in the stomach; and to support this doctrine its votaries refer to the appearance of inflammation found in the stomach on Post-mortem examinations: but that this is a fallacious mode of reasoning will readily occur to every one who is in the habit of frequently using the dissecting knife, for he must have frequently observed that inflammation of the mucous coat of the stomach & intestines very often supervenes during the latter period of all violent diseases, and that the signs of inflammation — such as sanguineous engorgement &c — are frequently produced, in articulo mortis. Again the remedies they propose for the cure of the

disease, is a strong presumptive evidence that the disease is not of a gastric nature - for it would be preposterous to suppose that any enlightened Physician would prescribe emetics in a case of confirmed gastritis. Indeed I think it appears sufficiently established that the proximate irritation of Delirium Tremens has its seat in the brain.

Prognosis. Mania a Potu in a simple and uncomplicated form is not in general a very dangerous disease, especially when the constitution of the patient is not worn out and broken down by excessive, and long continued habits of intemperence. When it is complicated with violent forms of fever, or visceral inflammation it mostly proves fatal. The disease is usually dangerous when it occurs in old topers who have previously laboured under any chronic organic disease. A fatal termination of the disease may be predicted when the delirium becomes constant, the pulse rapid and very small; the extremities cold and covered with perspiration, the pupils

Delusions Diseases -

Delusions is a strong phrase and means that the disease is part of a certain reality - for it would be impossible to suppose that any sufferer from Phobias was insane. Phobias are a form of nervous particular disease. Although it appears sufficiently established that the phobic mental constitution of delusions Diseases has its seat in the brain.

Hydrophobia. Phobia is a simple and uncomplicated form of fear in dogs a very dangerous disease, infectious the small tubes of the Patient is most seen out and swollen, drooz, is excitable, and dog continues habit of snapping teeth. When it is simple rather with violent spasms of pharynx or throat from motions of muscles pharynx larynx. The disease is usually dangerous when it occurs in dogs with Human Hunting Delusions under any circumstances disease. Infection from bites of the diseases may be prevented when the delusions becomes great and the Pulse rapid and very uncertain. The patient will die and convulsed with hydrophobia.

small and contracted, with subsultus tendinum, and an agitated motion of the muscles of the face. Coma, with sensorous respiration, or convulsions is also a very unfavourable sign. A tranquil sleep indicates a favourable termination of the disease.

Treatment. If the pathology that I have given of this disease be correct, the proper remediate management may be easily divined. It has been stated above that the disease consisted in a morbid activity of the sensorium commune, then it is evident that ~~the~~ to blunt or subdue this inordinate action of the brain forms the most prominent & essential, indication of cure, and when it is recollected that this unnatural cerebral excitement is caused, not by the application; but: by the sudden abstraction ~~of the~~ of an accustomary stimulus we may safely infer, that the best way to cure it, is to supply a stimulus calculated to blunt and exhaust the morbid excitability of the brain, and for this purpose, opium presents claims to the practitioner above all other remedies.

of the Materia Medica. Opium should be given in this disease with a view to its soporific effect on the system, and for this purpose an enormous quantity is sometimes taken before the desired effect is produced, Dr Eberle recommends two grains of this narcotic to be given every hour (after free purgation) until sleep is produced. Although our principal reliance must be placed on opium in this disease, nevertheless there are other powerful remedies which should never be overlooked. The bowels should always be attended to, and when found in a constipated and loaded state they should be relieved by a purgative, previous to the administration of opium; and when we recollect that persons addicted to the long continued and intemperate use of ardent spirits generally have their bowels in a torpid condition, the necessity of paying attention to this subject will be readily perceived. Indeed the needless administration of opium, previous to paying proper attention to the state of

Definition of Insanity

of the Medical Jurisprudence. Opinions differed
very much in these days in regard to the
responsibility of the criminal and in these
proceedings evidence was given by experts
to show that the criminal suffered from
a certain mental condition which
rendered it impossible for him to be
held responsible for his actions. Medical
men were called upon to give their opinions
as experts (after the fashion of
witnesses) upon the question of insanity
and their evidence was received by the jurors
as opinions on the subject. Nowadays
the medical man is called upon to give
his opinion as to the mental condition
of a prisoner, and the jurors are left
to decide upon the evidence of other
witnesses as to the facts. The medical
witness always has a difficult to find words
phrased in a comprehensive and intelligible
manner the opinion he has formed
of the mental condition of the prisoner
from the evidence of the other witnesses
of facts; and it is in this attempt
to express the opinion in the language of
the law that the difficulty arises.
The medical witness is called upon to
give his opinion as to the mental condition
of the prisoner, and he gives his
opinion, perhaps, in the following
manner:

the bowels, has in some ~~instan~~ cases caused dangerous determinations to the head, and produced coma instead of healthy sleep.
Bloodletting appears to be pretty generally condemned by the profession in this affections, yet cases of the disease may occur in which this remedy may be safely & efficaciously employed — for instance — a case of delirium Tremens should occur in a robust plethoric constitution, after a single night's debauch, with symptoms of congestion of the brain, and in a person whose constitution is not yet broken down by repeated drunkenness, bloodletting would certainly be an appropriate and useful remedy. Cupping the temples and forehead, and blistering the back of the neck, has been recommended, when much vascular turgescence of the head exists, with furious delirium.
Emetics have been highly praised, by different authors, as a valuable remedy in this disease, and doubtless they may be proper when used as an auxiliary or preparatory measure to the exhibition of

Bleeding Arteries.

The vessels, from the same causes, cannot transmit distinctions to the brain, and produced some sensations of hearing sound.

Bleeding appears to be partly generally concluded by the physicians on this occasion, but cases of the diseases may occur in which this remedy must be applied with considerable propriety — for instance, a case of delirium tremens. Blood occurring in a robust plethoric constitution, after a simple night's debauch, with symptoms of congestion of the brain, and in a person whose constitution is not yet broken down by intemperance, bleeding would be an appropriate and useful remedy. Taking the simple case of the head, and following it back of the neck, has been commended in such cases instead of or in addition to bleeding.

Formerly it was been highly praised, by different authors, as a valuable remedy in this disease, and doubtless it may be proper in such cases as an auxiliary or partially necessary to the operations of

opium, in patients possessing sufficient constitutional vigor to withstand their operation. Cold and tepid affusions also, have been advised in this disease. Dr Armstrong recommends two or three gallons of tepid water strongly impregnated with salt to be dashed over the whole body, and then immediately drying and rubbing the body with warm flannels; and having the patient put to bed, administering forty or fifty drops of laudanum in a little warm wine. The same author, also, speaks of the good effects of cold affusions in patients possessing much apparent vigor of constitution, he always recommends stimulants to be given immediately afterwards. Wine and other stimulants have been recommended in this disease, and no doubt when judiciously administered, have been productive of beneficial effects.
I forbear saying more on this disease until experience and observation shall confirm or alter the views already set forth, which have been drawn from the different authors that I have read upon this subject.

An Inaugural Dissertation

On the Pathology of Fever

Submitted to the inspectors

of the

Trustees and Medical Faculty

of the University of Maryland

for the degree of Doctor of Medicine

By A. Dougherty

of Washington

An Inaugural Dissertation

On the Pathology of Fever

Submitted to the inspection

Of the

Provost Trustees and Medical Faculty

Of the University of Maryland

For the degree of Dr in Medicine

By R T Doughty

Of Washington

March 1835

Preface

In compliance with the usual form, I have attempted, in my feeble and imperfect way, to give a very brief dissertation on the Pathology of Fever.

It cannot I presume, be expected, that a Candidate, just preparing himself, for entering upon his professional Career, who has never had, much either of observation or experience to guide him in his researches, and who's views of Medical Science, have been taken almost exclusively, from the lips and writings of others, should give to the consideration of a subject, that investigation, which might lead to the discovery of any new truth, or settle upon a more permanent basis, any one position of doctrines already established.

But it appears to me, that every thing necessary in writing an article of this nature, is soon comprehended by a simple statement of facts, and a close adherence to the sentiments and opinions of those, whom we have always been taught to consider, as our surest guides and most undeviating instructors.

The subject which I have selected for discussion, is as I am well aware, one of great magnitude and importance, and lest I should be accused of arrogance and presumption, in assuming to myself, a responsibility of so high an order, I beg leave to state,

that after having attentively considered every topic, which presented itself to my notice within the pages of Medicine, I found none concerning which, I knew less, than that of the Pathology of Fever; accordingly I determined to take Pathology for my Theme, so that, by unremitting study, and constant meditation, I might convert, what was once a barren and desert wild, into a fair and fertile soil, and set to running in the invisible channels of the mind, as another streams from the deep and inexhaustible fountain of Knowledge.

If it shall be found, in the course of my dissertation that I have in any manner, called in question, the sentiments and opinions, of the Author, to whom I am principally indebted for my knowledge of the Subject, I hope it will not be imputed to me, as an arrogant assumption, of a prerogative which my years and abilities give me no title to Command or of a vain and foolish desire, of making an untimely display, either of critical sagacity or ill-placed declamation. If on still further examination, it be ascertained, that I have taken upon myself, the arduous responsibility, of thinking for myself, Rejecting the entire theories of some, and adopting, with exceptions the theories of others, I trust, that, it will not be considered, in any other light than as the results of a firm conviction of my bosom, of what is thought to be the real state of the case, and as a manifestation of the love, which I cherish

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always cherish, for the Cause of Science and Truth.

Having said this much, by way of introduction, I now dismiss the subject, leaving it to the candour and generosity of my Professors, ~~who I am confident, will feel inclined~~ to make every allowance, for all the imperfections which the nature of the subject, would of consequence elicit, from so young and inexperienced a Writer.

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Pathology of Fever

In the long line of human maladies, there is no disease, which presents itself to the consideration of the medical enquirer, of more importance, than Fever, Indeed when we consider the vast accumulation of experience and observations, and the countless theories, which this subject, has elicited from the most eminent Pathologists, of every age, its paramount interest, will be apparent, Among the ancient Romans, the most enlightened people of their day, the custom was very prevalent, whenever an Epidemic Fever appeared, to supplicate the Gods, with fear and trembling, that they would avert from them, an evil, which to their immagination was more terrible even than death; and Horace himself in view of the importance, which he together with the rest of his contemporaries, entertained concerning the nature of this malady, when speaking of diseases, as they rushed out of the box of Pandora, calls them, all, indiscriminately by another name, than that of Fever

"Post ignem aetheria domo
Subductum Macies et nova febrium
Terris incubuit cohors"

If we are to take the authority of Van Swieten, upon this subject, that, "excepting those, who perish by violent deaths and such as are extinguished, by mere old age, almost all the rest of Man-kind die either of fevers, or of diseases

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Complicated with Fever" then are we compelled to admit without further hesitation, that fever is not only paramount in its importance to every other disease, but is also, the only one, to which we need direct our attention, with the hope, either of advantage to ourselves, or of benefit to our fellow-creatures.

Although fever is a disease, of such vital importance, and although the attention, and investigation of so many experienced and enlightened minds have been directed to the subject, yet is there no malady in the whole compass of medicine, concerning the nature of which, less is known than that of the subject under consideration. "The human mind", says Dr. Eberle "has been engaged with it, for near three-thousand years. Theories have risen and sunk again, in a continued and rapid series of succession, each has had its hour, to strut upon the stage, and its votaries to yield it faith, but the stream of time has hitherto overturned all these insubstantial, though often highly wrought fabrics." There is nothing, in my opinion more conclusive than this, of the obscurity of the subject.

The question which would naturally present itself in this place, is, what is our knowledge, in the present stage of science, concerning the nature of fever, or as we know more concerning this subject, than what was originally known? To this question Dr Eberle shall reply, he says, "There has probably, never been a theory or doctrine, promulgated

which did not clear away some old rubbish, or bring to a fuller view, some of the relations of the phenomena, it presumed to elucidate. The dreams of speculation have vanished, but the facts and correct principles, which were necessarily mingled with them remain as so much valuable treasure saved out of the wrecks of former systems."

To conclude in proportion as mankind progress in knowledge and refinement, and consequently in proportion as the field of observation becomes more extensive and universal, just in that proportion, will the succeeding labours of all future enquirers be crowned with success; and if at the present day the Pathology of Fever, is still in its infancy, yet is there a foundation laid, upon which generations yet to come, may see a glorious superstructure and realize in their splendid fabric, what only existed before in the vague and undefined immaginings of their predecessors.

Like many other things, which are at once obvious to the senses and concerning the existence of which almost every one can decide, fever does not admit of a strictly correct and unobjectionable deffinition, since there is not a single symptom which is invariably present, and which can be regarded as absolutely ~~present~~, essential to its existence. With this view ~~therefore~~ of the great difficulty which exists in giving a strictly unexceptionable & scientific

definition of fever, we should shall wave for the present all attempts at an answer of this kind and enter more immediately upon the principal points, which it shall be our province to treat of.

Fevers have been divided by Pathologists into two kinds, according to their different modes of development, viz, Idiopathic or general fever, and symptomatic, or fever resulting from some primary local affection.

Concerning the right meaning of these terms, Dr Eberle it appears to me, entertains very confused ideas, or else has expressed himself in a very indefinite and unsatisfactory manner. Thus in defining what is understood, by the term Idiopathic, he says, "Those who admit the existence of such fevers, suppose, that the remote febrific cause produces a deleterious impression on the sentient extremities of the part upon which it acts, which derranging function after function, according to the coloration of the organic sympathies finally results in a state of general disease, characterised by the ordinary phenomena of fever." This is the Doctor's definition of Idiopathic fever, now let us hear how he defines Symtomatic fever. "Many eminent Pathologists," continues Dr. E..... "maintain, that no such fever can exist, but that all febrile excitement is purely symptomatic, and of cause essentially and wholly

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dependant on a previous local irritation. According to these views, the direct influence of the remote causes of fever is limited to the production of the primary local inflamation or irritation, the subsequent febrile phenomena being the result solely of this primary local affection, in other words the secondary and sympathetic excitement of the previous focus of irritation."

Now where I would ask, exists the distinction, between Idiopathic and Symptomatic fever, in these definitions, which Dr. Eberle has attempted to give us of these terms. What difference is there between, the morbific cause, in the first inst: making a deleterious impression on the sentient externity, of the part with which it comes in contact, and then by sympathy of the other organs with the one which has received the morbific impression those organs themselves becoming affected, so as in the end to give rise to febrile phenomena — and the morbific cause, in the second inst: establishing a local irritation, from whence by sympathy, all the febrile phenomena successively emanate, I must indeed confess my own inability to discover here the slightest shade of difference, whatever — it is palpable, bared as the open day light, that Dr. Eberle, in drawing this distinction, has merely employed different words to mean precisely the same thing. ———

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"He's not the man, that can divide
A hair twixt South and South-west side"[20].

Dr Eberle following up his mathematical definition of Idiopathic and Symptomatic fever, professes his belief in both routines, that is, he firmly believes, there are instances in which fever takes its immediate rise, from some local irritation caused by the morbific impression which is made upon the nerves which communicate with that part, and that there are instances in which fever is propagated by sympathy from a reflected irritation of one of the sentient extremities, — in fact it is a settle conviction of his mind that there are two distinct kinds of fever produced by two very distinct modes of action of the remote cause that this remote cause acts precisely alike in both cases, and that Idiopathic and Symptomatic fever are without the least shadow of a doubt nothing more than one, and the same thing. To prove the truth, of what I have just stated, I will only cite one instance more, in addition to the two quotations which I have given above. Page 16 — third paragraph of Dr Eberle's introductory remarks concerning the Pathology of Fever, he says, "It must indeed be admitted, that local irritation or local morbid action, invariably occurs as the initial morbid condition, whence the series of ~~consequitive~~ consecutive arranged actions in the evolution of fever, have their origin —

This admission is predicated in part, on the demonstrable position, that the local morbid excitement is not infrequently localized, in a greater or less extent of the lining membranes of the blood-capillaries themselves, &c, &c"
In this place the Doctor is maintaining the Idiopathic nature of fever — yet what is farther from the express meaning of that term, than the word local — indeed his very admission, in the latter part of the quotation, proves that he confounds, Idiopathic with Symptomatic fever and all the arguments he has advanced in the whole course of his remarks, on the Pathology of Fever go to show that he advocates exclusively the Symptomatic nature of fever. ~~He has of all in, Thus, the The Doctor appears not to know it.~~

From what I have said, it will be seen that Dr. Eberle, from what cause it is not very apparent, has failed in giving a correct definition of what is understood by the term Idiopathic, and though he has explained in a manner somewhat more satisfactory, what is understood by the word Symptomatic, yet even on this point, I do not agree with him altogether as will be shown hereafter.
My Professor I hope, will not take me by the ears, for being so familiar in my expressions, concerning the remarks of a gentleman of such high reputation as Dr Eberle

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of in any manner. I could have properly avoided, what I have said, I would have done so, but so perplexed and bothered was I by the indefinite and analogous meanings which he attached, to the words Idiopathic and Symptomatic that I was forced to speak out, and thus give rest to the conflict of my feelings. If however it shall be found, that I am in the wrong in thus arraigning, the expressions of Dr Eberle, and if it be true, that what he says, is in coincidence, with the general acceptation of those terms, then do I most willingly and with feelings of sincere regret, ask the gentlemans pardon but that is all, for if the ideas, which Dr Eberle has expressed concerning the meaning, of Idiopathic and Symptomatic fever be the ideas entertained, by all who advocate these two doctrines of fever, then I will say, that the distinction made between them is a very foolish and absurd one, and exists nowhere save in the names which they have given to them; if this be the distinction, which is understood, and generally accepted, then is it a stigma upon the name of Science, and should be expunged immediately and forever from the pages of Medicine. But I congratulate myself that such is not the case, that an entirely different sense of the meanings, which are attached to these terms prevails, and that there is no more resemblance between the mode of action of the morbific cause, in Idiopathic fever and the cause which gives rise to Symptomatic fever, than there is between a cause which possesses the morbific character

essentially in itself and a cause, which merely acts mechanically.

Before giving my views of what I understand by the terms Idiopathic and Symptomatic, I will merely remark without going at any length into the subject, that I think the doctrine entertained by Broussais and his disciples, viz; that fever is always Symptomatic, and in every case dependant upon inflamation of the mucous membrane of the alimentary Canal, is not only absurd and irrational in the extreme, but has also received a very sound drubbing at the hands of Dr Eberle. I will remark again concerning the doctrine, entertained by Dr S. Smith, viz: that all fevers are Idiopathic, and that fevers arising from local inflamation, are not fevers, but inflamations; if it is not as irrational as Broussais Theory, is still far enough out of the way, to be entitled to the epithet of Bigotism. Lastly I will remark once more, that if Dr Eberle's Theory of fever is not coincident with one or both, or neither of these, I would not hesitate to say, that he Knows not what it is himself.

The views which I shall now take of Idiopathic and Symptomatic Fever, if they should not happen to be those which are generally understood, as the real signification of these terms, are nevertheless such as I consider to be the most rational, and which I shall maintain, untill better informed.

Idiopathic Fever, I would define to be a fever developed

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and sustained by certain morbific causes, (which causes are themselves essentially poisonous and entirely differing from mere mechanical causes) these causes make a deleterious impression primarily and essentially upon the nervous system, and then by the powerful influence, which the nervous system exerts over the other parts of the body, by its diseased and unhealthy condition the other parts becomes involved also, that is, it imports a deleterious impression to the parts with which it comes in contact in the same manner, that the morbific cause itself in the first inst. affected the nervous system.

From this definition, it will be seen at a single glance, that Idiopathic Fever is widely distinct in the modus operandi of its cause and in the cause itself from symptomatic Fever, the cause in the one case, is a true morbific cause, a specific poison acting directly upon the nervous system and developing the disease essentially in that system itself and though it is true, the blood vessels, Stomach, Liver and many other organs seem to be most prominently deranged in many instances, yet are these affections no more than consequences of the deleterious impression, which is made upon those organs by the morbid influence as it proceeds along the course of the nerves, ~~to develope the phenomena of~~ over the whole body to develope the phenomena of fever. In no instance where there is a morbific agent producing fever, can local inflamation, wherever it may reside, act in place of that morbi-

fic agent, it still being present, for I hold it as incontro
vertible, that inflamation, as just mentioned above, is in such
cases, always the consequence of the diseased nervous System
and never a cause of fever. I can ~~always easily~~ easily conceive
however, that after the morbific cause has been removed from the
nervous System, the inflamation which may have supervened
during the developement of the fever, may still act as a cause
in keeping up the excitement, and in preventing the abatement
of the febrile phenomena. It will be easy ~~now~~ to perceive, the
views which I ~~now~~ entertain concerning the nature of the ordi
nary Intermittents, Remittents, Yellow Fever, Typhus Fever
all the Contagious, and in a word every other description of fev
er which owes its origin to causes, which possess an essential
morbific nature, they are all Idiopathic, the disease resides
primarily and essentially in the nervous System, and in no
case whatever are either of these fevers produced by local
inflamation, but on the contrary are always independant
of it.

It is hardly necessary for me, I presume to enter ~~into~~ here
into an argument, ~~to~~ prove that the views, which I have
taken, concerning the nature of Idiopathic Fever, are correct, or to main
tain by any array of facts, the position which I have
adopted, that local inflamation in Idiopathic Fever is alwa
ys the consequence and never the cause of the disease, if
indeed I were even willing, the short time allotted me for

the performance of the task would be much too short to enable me to do it justice. In conclusion however of this subject, I will remark, that it is much easier, and indeed very less more natural for the morbific cause to act directly through the medium of the nervous system in producing fever, than by producing inflamation or irritation in some particular organ or structure, and thence by irradiation, that irritation or inflamation to produce the disease. The difference between these two modes of operation, is, that the one is direct and the other indirect, and why, I would ask should nature go out of a straight path to find a crooked one? this surely, is contrary to our every day knowledge of her. To have morbific causes, to act by sympathy or first to produce local inflamation or irritation and thence that inflamation or irritation to produce fever is indeed to overlook the very nature of the cause, and to have it to act as a mere mechanical cause when in truth it is something more, it is essentially and to all intents and purposes a poison. I say to have a fever to be thus developed, is a fever arising from inflamation alone, and not from the morbific cause, which would be absurd in the extreme. I hope this, ~~I have given~~ a satisfactory explanation of one of the many reasons, which I have why I maintain, that all fevers arising from morbific causes are Vacopathic. After all that has been said

Concerning the nature of Idiopathic fever, it will not be difficult to determine what are the sentiments which I entertain concerning the nature of symptomatic fever. The causes which operate in producing these two very distinct varieties of fever act generally and locally generally in Idiopathic and locally in symptomatic fever. Now as I have shown, that those causes only, which are morbific in their nature, are ~~alone~~ alone capable of giving rise to general fevers, the causes which produce local inflammation only, must be of a very different nature. What then would be the natural inquiry are these Causes? the answer is plain and obvious, they are nothing more or less, than simple mechanical agents, capable of exerting no other influence in producing fever, than their power of acting mechanically.

Symptomatic fever, I would define to be, a fever arising from local irritation or inflamation produced either internally or externally by the action of some mechanical cause. I admit therefore, in common with Dr Eberle, and all others, who advocate, the doctrine of symptomatic fever, that it does arise immediately from some local derangement, the point in which we differ is, that, while Eberle maintains, that, morbific causes do give rise to this form of fever, I maintain, that, they do not, but on the contrary, mechanical agents, only do operate

1.9.6

in producing it.
What then is the difference of which we have all this while been speaking, between Idiopathic and Symptomatic Fevers. In the first inst: the fever is general, because the cause is a morbific cause and acts generally, in the second inst: it has a local origin, because the agent which produces it acts mechanically and of course locally.
The indications of treatment pointed out in these two cases are obvious. In the first, attention should be directed primarily to the existing morbific agent, and afterwards to the local derangements, in the second, the local derangement, which gives origin to the fever, is only to be treated, upon the cure of which the termination of the fever depends. The treatment of Idiopathic Fevers, is the peculiar province of the Medical Practitioner, the treatment of Symptomatic Fevers, belongs almost exclusively to the Surgeon.
Having now defined, what I understand, by the terms Idiopathic and Symptomatic fever, and specified the causes, which operate in producing them, and as this part of the subject of Pathology was the one which I had principally in view when I first engaged in writing this dissertation, and because as the thread of my discourse has insensibly spun itself out, to a length much longer than what I originally intended, I hope if I take the liberty of cutting it short here, and of saying nothing more upon the subject, it will not be

considered as a shorn action, but that my will to perform, will be taken for the deed, and that the sample which I have given will be considered quite sufficient, without ~~addressing~~ ~~to the~~ the necessity of my further exposing my ignorance or of wasting more paper, by my unedifying and futile Remarks.

Finis

An

Inaugural Dissertation

Submitted to the Examination of the

Provost, Professors & Trustees

of the

University of Maryland

for the degree

of

Doctor of Medicine

by

A. Minor of Virginia

1835

To Eli Geddings M.D.
Professor of Anatomy and Physiology
in the University of Maryland.

In the selection of one ~~to whom~~ to whom to dedicate this, the first-fruit of a medical education, the author could not, perhaps, fix on any one more suitable than yourself; eminent for your talents and medical knowledge, which deservedly rank you high and which will be duly appreciated by the members of the profession and men of Science.

To you, with your permission, this essay is respectfully inscribed, as a testimony of unfeigned respect and admiration by your obedient. Servant

The Author

Science can boast of no discovery of more importance, or which has produced a more beneficial revolution in medicine than that of the illustrious Harvey. The circulation of the blood is so generally known at the present day, the proofs on which it rests are so obvious and familiar to us, that we are struck with astonishment that it should have so long escaped observation. Mankind, however, from the beginning of the world, were accustomed to observe the fall of an apple, but it required the sublime genius of a Newton to deduce from that simple fact, the theory of universal gravitation; and notwithstanding the many approaches which physiologists made to the discovery of the circulation, it was not until so late as the seventeenth century, that this important fact was ascertained and promulgated.

At an early age Galen ascertained the use of the valves at the two orifices of the ventricles, that the arteries contained blood, and that they were filled by the action of the heart: but his discoveries rested here

After the time of Galen, it was not until the sixteenth century that a single ray of light was thrown upon the secret of the circulation. At this ~~early~~ period Servetus made considerable advances in the sciences, and was the first to indicate the passage of the blood through the lungs, but did not live to confirm or extend his discovery: this was done by succeeding Anatomists.

The general circulation, was, however, not even suspected. Men's minds were still enslaved by errors, which having prevailed so many centuries, had acquired the sanction which time

and authority bestow on opinions however absurd.

When the illustrious Harvey had the courage to break the fetters which authority had imposed upon reason, and to enter into an examination of opinions which had been long consecrated as infallible truths, the result of his investigation was the discovery of the circulation of the blood — a discovery which he not only made but perfected.

Perfect as was the discovery of Harvey, so far at least as respects the route of the circulation, he failed in ascertaining the forces by which it was effected. The heart is admitted by all to be the principal agent in the circulation, but there are also other agents concerned, upon which physiologists cannot so readily agree.

The blood of the left auricle is thrown

into the left ventricle by the contraction of its muscular fibres: this is very evident and satisfactory. The blood of the left ventricle is thrown into the arteries by the contraction of its muscular fibres and produces that pulsation which is familiar to every one. Harvey & many succeeding physiologists supposed that the impulse received by the blood from the left ventricle was sufficient to move this fluid not only through the large arteries, but also through the capillaries, and even through the veins into the right auricle, so that the contraction of the left ventricle is, according to them, the cause of the circulation in its long course from the left ventricle to the right auricle. But whatever may be the power of the heart, it has been "incontestibly proved" says Bichat "that when the blood has arrived in the general capillary system, it is

absolutely beyond the influence of the heart; still less has the heart any influence in the motion of the blood through the venous system". The phenomenon of blushing, of inflamation, of hæmorage, and want of pulsation in this system, shew that the action of these vessels is independent of that of the heart.

Whether or not the motion of the blood through the arteries is influenced by any action of these vessels is a point by no means settled. It was the opinion of Bichat that the heart was the only power that puts the blood of the arteries in motion & that these vessels are entirely passive. But it is the opinion of distinguished anatomists, with whom I accord, that the blood is not circulated by the impulse received from the heart alone, but that its progress is assisted and maintained by a contractile power in

the arteries

Some anatomists, not being able to discover nerves going to the middle coat of the arteries, denied its muscularity: and from being unable to excite their irritability by mechanical or chemical stimuli, believed that no inherent contractile power resided in them, that their action depended upon elasticity, and not upon their muscularity. That this is erroneous is proved by the fact that the arteries after death are always found empty and in a relaxed state, which should not be the case if their contraction depended entirely upon their elasticity; for if it did, they should when empty, always be in a state of contraction.

That the arteries possess a local and independent action is evident in certain diseases: thus we see an increased determination of blood to the head in apoplexy: in paralysis the pulsation is stronger in the healthy

than in the paralytic limb. When also a limb is torn off by any sudden force, the artery is frequently so deadened that no bleeding ensues. Now if the blood was circulated by the heart alone this could not happen, but the patient would bleed to death.

It would therefore seem probable, that the arteries possessed the power of contractility to a certain extent, and that the blood sent to the capillaries by the contraction of the left ventricle, is assisted in its passage by the action of these vessels. Arrived at the capillaries all evidence of the influence of the heart upon the motion of the blood appears lost, and it seems to be propelled by the action of these vessels alone into the veins. After the blood has arrived in the veins, much difference of opinion exists, as to the power by which it is sent to the heart. The following are those generally believed to be concerned in the production of this effect. Viz:

1st The action of the capillaries.
2nd Muscular action.
3rd Respiration and atmospheric pressure.
4th Dilitation of the right auricle.

The capillary System, by its indensible contractility, pours continually into the veins a certain quantity of blood. This fluid, added to that already there, communicates a general motion to it; if the veins were as strong as the arteries, and did not dilate when the blood entered them, they would transmit the surplus to the heart, but as the veins are very dilatable, the impulse received from the capillaries would only distend these vessels: indeed the impulse communicated to the blood exceeds so little the resistance, that the slightest obstacle deranges its motion, hence the necessity of other powers to assist it.

One of the most important of these is Muscular action. In contracting the muscles press upon the veins and the blood is pushed towards the

heart, its course in a retrograde direction being prevented by valves with which all the veins are furnished. As there are superficial veins over which muscular action can have little influence, and as these anastomose very freely with the deep seated ones, it might be supposed that the blood would be forced from the deep-seated ~~ones~~ veins into the superficial ones, and accordingly we find, that very often in persons engaged in laborious occupations the frequent pressure of the muscles on the deep seated veins, force the blood into the superficial ones, and produce a varicose state of the vessels. This is ~~prevented by~~ remedied by external pressure, by bandages &c. but nature has not been negligent in providing means to guard against so unpleasant an occurrence.

The chest is a complete cavity, divided into three seperate chambers, two of which are occupied by the lungs,

and the third by the heart. The only communication with these, is either through the trachea into the lungs, or through the veins into the heart. When the ribs are elevated, as in the effort for inspiration, the whole cavity of the chest is enlarged, and the air remaining in it is rarefied. The passage through the arteries is prevented by valves. It is evident that equilibrium can be restored only in two ways: 1st by the air rushing through the windpipe into the lungs, or 2nd by the blood flowing through the veins into the heart. As the air is constantly pressing on the superficial veins, as soon as the air in the lungs is rarefied the atmospheric pressure on the veins will force the blood towards the heart. It cannot be pressed into the deep-seated veins on account of the pressure of the muscles, nor can it retrograde in consequence of its valves, for when pressure is removed from any one part the blood will flow towards that part, as is illustrated in the

familiar instance of cupping.

Thus then the air in the lungs, which would be rarefied when the ribs are elevated, has its equilibrium restored: 1st. by the air rushing through the trachea into the lungs; 2nd. by the flow of the blood through the veins into the heart. That this latter takes place is confirmed by Mr Cooper, who observed, in performing the operation of tying up the carotid artery, that the jugular vein was distended at every expiration and spread itself over the artery, while it was rapidly emptied during inspiration.

That muscular action and atmospheric pressure are both important moving powers in the circulation of the blood through the veins is further proved, if further proof be necessary, by the fact that in the brain where neither of these forces can act, that organ being completely enclosed in a bony case, another provision is necessary, and this is found in the

influence of gravitation. It is well known to every one, that if a person be suspended with his head downwards, the blood will not flow through the veins into the heart; but that the person will die of accumulation of blood in the brain, the blood sent into it by the arteries not being returned by the veins, except when influenced by the action of gravitation.

So great, however is the influence which respiration exercises, that while inspiration assists, expiration almost counterbalances the effects of gravitation. It has been observed ~~that~~ the rise and fall of the brain, caused by the filling and emptying of its vessels, is synchronous with respiration, not with the action of the heart. The brain rising during expiration & falling during inspiration.

Dilitation of the heart. The cavities of of the heart are not entirely passive during dilitation. "If you, attempt," says

Richerand) "to check the diastole of the heart; this organ resists the hand which compresses it; and its cavities appear endowed with a power which the Galen termed pulsive; in virtue of which they dilate to receive the blood, and not because they receive it."

In vain some physiologists have contended that the heart is dilated and does not dilate itself, and that this dilitation is absolutely passive: the dilitation of the heart is a true effort, and active movement which manifests itself even in a heart torn from a living animal, although it does not contain any blood.

We are not prepared to shew by what property or in what manner the right auricle expands to receive, or rather invite, the flow of blood into its cavity, but that it does expand, and that with some force is an established fact. It is true that we know not the power by which this is

effected — nor of any property of muscles by which they expand — but it is equally true that we are not acquainted with the courses of the fibres of that muscle: it may be possible that there is some arrangement, by which the effect we speak of may be produced on their contracting; the contraction of the ventricles we believe also assists the expansion of the auricle: but above all it is seen to expand.

Such then are the forces by which the blood is circulated. The action of the right auricle forces the blood into the right ventricle, the contraction of this latter sac propels the blood into the capillary vessels of the lungs, where, aided by the action of these vessels, the contraction of the chest, and the dilitation of the left auricle, the blood flows into the left auricle: its contraction throws the blood into the left ventricle, and the contraction of this latter organ

propels the blood through the large arteries into the capillaries. here it receives a new impulse from the action of these vessels, and it passes ~~through~~ into the veins through which it is urged to the right auricle by the combined effects of the vis a tergo, muscular contraction respiration, atmospheric pressure, gravitation and the dilitation of the right auricle.

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De Inflammationis Pathologia,

Dissertatio Medica Inauguralis;

Auctore

Gulielmo T. Jones.

1835.

De Inflammationis Pathologiâ, Dissertatio Medica Inauguralis.

Omnibus ferè casibus chirurgicis intervenit inflammatio quaedam, sive causa sit, sive symptoma, sive complicatio, sive etiam sanandi modus.

Prius autem videtur, aliquid breviter dicendum de constitutione diversâ diversarum corporis partium, quam de hac se tractare incipiamus.

Cuique humani corporis parti est substantia sua, e cellulis quibusdam, vel nervis, vel etiam venis contexta, quarum umaquaeque, suâ

quasi

quasi veste est circumdata. Talis plane, plerumque, cornea est arterias et venas, et fibras quasdam, tanquam capillas, maximâ copiâ abundantes. Talis est substantia cutis, musculorum &c.

Venae capillariae, ubicunque magna invenitur earum copia, praeter munus nutriendi, alio funguntur munere, cujus exemplum videre possumus in membranis serosis, in quibus, fit, ut plurimum, exhalatio quaedam.

De muneribus cuique corporis parti propriis, e memoriâ non amittendum est; nam quo major sit numerus venarum, eò gravior ac frequentior est inflammatio.

Quod ad vitae functiones pertinet, constat alias alio modo partes existere; atque ita constitutio cellularis toto coelo distat a mucosâ, id quod planè oritur a diversâ cujusque partis naturâ quam antè notavimus. Quae cum ita sint, facillimum est intellectu, quid sit in-

flammatio

flammatio.

Partem aliquam inflammari dicimus, siquando sit rubra, dolore affecta, callida, ac tensa; quae symptomata saepissimè quidem, at non semper, comitantur inflammationem.

Ut hujus morbi natura magis accuratè percipi possit, necesse est de eo breviter disseramus, quomodo in singulis, de quibus supra diximus, systematis, comparere solet, sive in gradu simplici, sive in maxime complicato.

Haud ignotum est, inflammationem, si cutem afficiat, per omnes gradus posse progredi. Rubor cutis ex levi irritatione, quum pars aliqua sit propior ad ignem, est initium inflammationis; etiam tum pars ea acutius sentire videtur. Ante hanc mutationem, alia symptomata nunquam comparere solent.

Si conferimus omnia exempla inflammationis, in quibus vires quae

vitam

vitam sustinent magis strenuae semper evadunt, illatio planè sequi videbitur, harum virium accessionem imprimis esse causam hujus morbi. Sensus qui ita augetur, efficit ut affluat sanguis ad partem inflammatam, et inde effeatur in vascula aliena; id quod compparet in membranis serosis.

Ea est effusio sanguinis, quae inflammationem gravissimam comitari semper videtur, ut non amplius vascula rubra cernere possimus, sed tantum maculas, alias aliâ magnitudine, ut in pulmone siquando Peripneumoniâ afficitur.

Si magis augetur inflammatio, calor ferè sentiri coepit in parte inflammatâ, qui tamen intensior vero ut plurimum videtur; namque indicio est thermometer, quod temperaturam naturalem superat non amplius duobus, vel ad summum tribus gradibus.

Calor autem plus minus senti-

tur

tur, non solum in inflammationibus, verum etiam quocunque vires ad vitam necessariae, illâ aliâ de causâ augentur. Sed de hoc symptomate in praesentiâ disserere non est in animo.

In inflammatione maximè auctâ, ad alia symptomata accedit quoque febris quaedam, quae semper comitatur excitationes maiores, et quae antecedit interdum, interdum sequitur accessionem inflammationis. Haec febris tamen distat omnino a febribus idiopathicis.

Tumor aliquis etiam saepissimè comitatur inflammationem, cujus magnitudo pendet a quantitate sanguinis qui affluat ad partem affectam.

Duae sunt res praecipuae, ob quas mutatur natura inflammationis; imprimis, morbus cum quo conjuncta sit, deinde pars corporis quam afficiat.

Saepe conjungitur inflammatio cum affectibus aliis tam gravibus ut

morbum

morbum primitivum celent; atque ita coniungi saepe videtur cum adynamiâ, but cernere est haud raro in peripneumoniâ putridâ, et in febribus puerperis, in quibus quoque nonnunquam comparet putredo, et in phlegmonâ quam saepè sequitur mortificatio.

Saepe etiam complicari solet cum inflammatione tormina intestina, id quod planè videre est in omnibus nosocomiis. In terminâ vero imprimis oportet ut dignoscatur id quod proprium est hepatis ab eo quod pertinet ad ventriculum.

Aliae partes corporis plus minus afficiuntur ex parte inflammatâ; ita in peripneumoniâ, frequens cordis pulsatio concitat febrim, ventriculus ob sympathiam perturbatur, parum urinae redditur, et cutis arida devenit.

Sub initium inflammationum graviorum, constat inspicienti, organa omnia fieri languidiora solito.

Diferendum

Differendum nunc videtur de modis diversis quibus partes diversae corporis afficiuntur inflammatione. Ubique que inveniuntur vascula multa, et in systemate cellulari, mucosâ, atque serosâ, ibi quoque sæpius invenitur inflammatio. Ossa, e contrario, cartilagines, ac tendines, vix et ne vix quidem huic affectui sunt opportuna.

Constat erga cujusque partis constitutionem mutare symptomata de quibus antè tractatum est; ita, alius est dolor ex inflammatione in cute, atque alius in constitutione cellulari.

Rubor etiam et calor multum differunt in diversis systematis, nam cutis ex levi tantum irritatione rubefieri solet, membranae serosae vero nunquam nisi post longum tempus rubefiunt.

In systematis quibusdam, satis manifestum est quae sit causa roboris, in aliis autem, in quibus venae nullae

cernuntur, habet causa.

Quod ad calorem pertinet, in Erysipelate acer et pungens invenitur, in Phlegmonâ gravior devenit, et in Rheumatismo, diverso genere esse comparet. Hinc satis manifestè percipi potest aliam esse inflammationem in aliis systematis.

Ubibus in modis ad finem adduci potest inflammatio; 1. per resolutionem; 2. per suppressionem; 3. per suppurationem seu mortificationem.

Naturâ perducitur ad finem inflammatio per resolutionem. Imprimis aucta quam maximè, postea gradatim imminuitur, ac deinde resolvitur.

Tempus quo resolvantur inflammationes admodum incertum est et varium. Affectus alii cum quibus conjungitur inflammatio, sit et systemata in quibus apparet, et quorum vitalitas et constitutio inter se differunt, efficiunt ut citius interdum,

interdum

interdum tardius resolvatur.

Quo magis stroma sit vis vitalis, eo citius resolvetur inflammatio; id quod videri solet in cute, in musculis, atque in aliis systematis similibus. Si autem vis vitalis sit languidior, et fere imperceptia, ut in ossibus et cartilagine, non nisi admodum tarde conflarent symptomata. In aliis partibus chronica fieret, at hic tantum acuta est. Aliae autem sunt causae ob quas citior aut tardior fit resolutio; quae causae sunt modus tractandi, temperatura, ac temperamentum.

Affectum huncce, sequande ad finem perducitur per resolutionem, comitantur fere secretiones magis copiosae. De hac de tamen hic disserere non est in animo; hoc tantum dicemus, quo augetur aliquande sudor, aliquando plus muci expectoratur.

Exercitia haec semper est fausta; quomodo tamen referat morbi, haud

facile

facile discerni potest.

Notandum est autem, non omnes inflammationes hoc modo finire; inflammatio enim videtur submissa systemate affecto.

Facillime dignoscitur inflammatio constitutionis mucosae, per excretionem; in ossibus vero haud ita potest dignosci.

Hic morbus reprimitur aliquando in progressu, id quod oritur saepe ex affectu ipso, alias arte adjuvante efficitur, velut quum praesesta sanatur discutiendo. Non semper potest statim suppriimi inflammatio; neque si fieri posset, expediretur saepe ut fieret. In Erysipelate, constat inflammationem suppressam diverti posse in partem aliquam internam magis vitalem. Periculosum quoque est, sub initium interpellere febrim intermittentem, supprimere variolas, vel etiam catarrhum simplicem.

In

In his morbis tamen, in quibus expertum est inflammationem fore lethalem si sit dedita ad vim medicatricem naturae, conari debemus in aliam partem transferre excitationem, ut in peripneumoniâ per vesicationem.

Sperte sub exemplum inflammationes nonnullae; aliae quoque haud alienis partis propriae esse videntur, verum ex aliâ parte transferuntur in aliam, ut in Rheumatismo acuto. Hoc quoque oritur ex differentiâ systematum, atque ita in cute saepe cernimus hanc mutationem, at nunquam in ossibus.

Finitur etiam haud raro hic affectus per alios morbos, ut per suppurationem et inflammationem chronicam. Sequando non fit resolutio, evenit fere suppuratio; hoc tamen praevidere non possumus, quoniam progressus morbi semper est idem; et praeterea systemata proclivia sunt ad hunc finem, alia magis, ut cellularia, serosa, atque

mucosa

mucosa, alia minus, et tendines atque ossa.

Quae sunt causae quae maximè afficiunt suppurationem, complicationes diversae, ac natura systematis morbosi.

Systemata quaedam, et antè dictum est, proclivioria sunt ad suppurationem, atque in his inflammatio citius ad finem progreditur; quaedam, e contrario, vix et ne vix quidem suppurare solent.

Modus etiam suppurandi alius est in aliis systematis; in mucoso nihil est nisi secretio aucta glandularum membranae suppositarum; in seroso, contrà, nihil est nisi exhalatio major solito, flocculis quibusdam aliquandò permixta, sine ullâ quae percipi possit erosione exterâ.

In systemate pulmonari seu collari, difficillimum est inspicienti cognoscere quomodo fiat suppuratio. Pus fere semper quasi stillat in pulmonem.

In

Ita ergo, pus et plerumque colligitur in parvos abscessus; in constitutione cellulari saccus haud parvus pluresque formatur, at constitutio serosa nunquam habet abscessus. Quae cum ita sint, satis constat suppurationem non esse munus naturale corporis, quale est nutritio, namque haec, ubicumque fiat, fit eodem modo.

Natura puris quoque mirum in modum variatur, quanquam fere omnia ejus genera confundere solemus cum eo quod manat e systemate cellulari. Aliquando limpidum est et serosum, aliquando flocculis miscetur, aliquando est falsa membrana, denique est ubi videtur simile pulmento.

Symptomata quoque, quae ex pure nascuntur, sunt diversa inter se. In constitutione cellulari comitatur gravitate quadam ac tensione; in systemate mucoso irritatio fere sentitur, quae incitat aegrum ad cau-

sam

sam ejus amoverdam.

In partibus quibusdam tamen pus manere potest sine magno dolore, veluti in thorace post pleuritidem.

Quidam auctores dicere inflammationem ad finem adduci posse per indurationem; hoc vero non nisi perrara fieri solet; atque ergo loquendum videtur de alio morbo, qui saepius comparet sub finem inflammationis acutae — ea est inflammatio chronica quae saepissimè evenit, idque maxime in partibus interis, post resolutionem aut suppurationem.

In hoc morbo partes inflammatae videntur ubique similes, symptomata praecipua vero, dolor atque calor multum imminui solent. Ut huic inflammationis finem planius intelligamus, exempla nonnulla proferre haud absurdum videtur. Inflammatio peritonei aliquando ad finem perducitur hoc modo — symptomata inflammationis imminu-

entur, verum abdomen obstruitur, et profundum dolorem sentit, vomitus saepe fit, tensio et dolor gravis sentitur. Hoc saepe videre est in peripneumoniâ, in quâ, inflammatio per omnia symptomata progressa, ad finem imminui coepit, dolor lateris tamen manet, et ne aeger moveat, prohibet. Hic morbus fere est praecursor hydropis vel phthisis pulmonalis.

In systemate mucoso inflammatio chronica est admodum notabilis. Rheumatismus acutus saepe quoque fit chronicus. Finis inflammationis chronicae quoque alius est in aliis systematis; in systematis serosis adducit ad hydropem, in membranis mucosis, ad dysenteriam. Denique, inflammatio nonnunquam finitur per gangraenam, quae quoque diversa est in diversis systematis. Raro quidem invenitur gangraena in cartilagine; in nervis, aut in ossibus; alia vero systemata, ut cutis, constitutio cellularis, membranae serosae atque mucosae, multo in eam proclivioria sunt.

Duae sunt causae quae possunt

conducere

conducere ad hunc finem; imprimis, natura singularis morbi, deinde excessus inflammationis.

Inflammatio quae conjungitur cum adynamiâ saepe finitur per gangraenam; hoc autem pendet a naturâ generali seu particulari complicationis. Si adynamia sit particularis, gangraena ut plurimum consequitur, non autem comparet in peripneumoniâ putridâ; sed ubicunque inflammatio conjungitur cum affectu aliquo locali, pars inflammata saepe fit putrida, ut in anthrace. Gravitas hujusce complicationis admodum fere est varia. Est ubi mortificatio consequitur subito; aliquando autem haec putrefactio non omnino apparet.

Interdum quoque, cum vis vitalis magis aequo strenua est, fit gangraena. Hoc tamen multo magis est timendum in aere quam in urbe. Praeterea dignoscendum est accuratè inter putrefactionem et gangraenam, in quam medicamenta anti-septica nihil valent.

Finis.

Inaugural Essay,

On various theories,

that have been advanced on the subject of the

Proximate Cause

of

Conception.

Submitted to the examination of the

Provost, Trustees and Professors of the University

of Maryland,

for the degree of Doctor of Medicine,

by Wm Hawes Creager,

of Maryland.

1835.

Dedicated to the
Professors of the University of Maryland.

Gentlemen,

I entreat your acceptance of this little and imperfect pamphlet as a small, but grateful tribute of the respect, and esteem, for the many obligations so generously conferred to me by each of you; which, I have only to regret, that it has not been in my power, to present you with, something more worthy of your notice, than this hasty, and illiterate production. But, tis a consolation to me, to reflect, that your candour to excuse is not less eminent, than your abilities to judge.

The youthful mind, the cause of inexperience, (are well known to each one of you) will be, I think sufficient apology to cause you to extend your indulgence to its numerous imperfections.

The Author.

Preface

When speaking on the obscurity of the subject on which I am now about to enter; the critic world, to whose inspection it is to be subjected, and my incapability of doing it justice, almost induces me to recede from the task, and abandon the pursuit. But being stimulated by the anxiety of future prospects, and in conformity to the laws of the Institution, which makes it indispensably necessary that I should become an author, I attempt it, tho, not without being conscious of the cross of judgment to which I, (like every other person) am liable.

The present or forgoing subject, has, in all ages been discussed by men of eminence in the Profession; both those of the ancient days, and those of the present time, each maintaining their opinions with eagerness, and intelligence. The many hypothesis, the various dissections, demonstrations, and experiments; which have been advanced by Philosophers, particularly those of an ancient day (the subject of whose hypothesis will be the immediate object of this paper) yet all these have left us like a blind man searching for for a feather, on a windy day. Clouds of ignorance still intercept our view; which causes us to bend from the pleasing paths of truth, by the art of reasoning, into the mazes of dubbie ingorance.

No subject in Physiology has engaged more attention among Philosophers than the functions of the organs of Generation - we find some of the most celebrated and learned men of their day, among whom are the talents of Buffon, Bolingroke, Aristotle, Swinhoe, Haller, Spallanzani, De Graff, Harvey, Darwin, Cruikshank, Hunter, Naichtenand others, whose opinions having succeeded each other like the waves in a storm, each wave relining, to give way to others that are equally great and unstable -

In this mysterious creation of Nature (Generation) by which animal beings are kept from becoming extinct, and without this process or operation the HUMAN race would soon perish or deprived of this faculty of producing itself - In order to trace the Hypothesis on this subject, it would be well to attempt a delineation by noticing in the first place the vegetable as they approach to the Animal kingdom and animals as they approach to the Human being, or Sexually Man -

In the form and structure of the seeds of vegetables of every denomination, there is some peculiarity, tho' all containing the rudiments of a future plant, with something added to their form of equal efficacy

for the Generation of the Plant, and hence equally called life, as that Principle by which Animals are brought to their Perfection. Thus the willow, Myrtle and many others of that Species, can be propagated by the simple operation of inserting slips or twigs, cut from them, into the Earth. In the Animal kingdom the Polypus, and a certain class of worms, can be cut and Multiplied in the same manner. These appear be the lowest grade, or nearly so, of Organic life. The Second degree of delineation will be those Plants which contain both male and Female properties, in the same Calyx. This delineation, likewise comprehends all the Animals that are usually denominated Hermaphrodites. These Animals, tho' endowed with compound organs, yet require always a Mutual assistance in propagating their singular species. The Snail as an instance presents a particular variety of this ill Conformation, because its male and female organs, are united in the same individual, yet it is not susceptible of generation alone but requires to be coupled with another Animal of the Kind equally Hermaphrodite, in order to be stimulated by friction, and other means of irritation, to

the act for its own reproduction: The third denomination includes the plants whose generative organs make the nearest approach to those of the Human species - And comprising this class, are the trees and plants that present the organs of one sex in the same tree or plant - The Mulberry tree, come under this head - It includes of the Animal kingdom many amphibious Animals; likewise most of the Fishes - The semen masculinum is placed in direct contact with the farina and ova of the female of the Amphibious Animals, such as the Frog and toad when experiencing the venereal impulse, resort to the stagnant pools for enjoyment - In copulation the male mounts on the back of the female, and embraces her vehemently for several days - While connected in this manner they both emit a fluid, the union of which, results the new animal - The phenomenon of Fishes are much the same; they leave the cold and boisterous Ocean, for water, that are quiet and warm - The male emits their fluids, here on the same spot - The fourth and last division includes man, quadrupeds and birds - In the males of this class, there is organs or apparatus for injecting their semen into the female organs of generation, which are equally adapted for

receiving it. But the manner in which it is disposed of, afterwards, and the relation which its agency to that of the Uterus, Ova and its appendages, in forming the Foetus, is the mystery, and yet the subject of many enquiries.

The Hypotheses are many, and singular upon this subject. The first of which I will notice, is that of the celebrated Hippocrates, who maintained that each of the two sexes, possessed two kinds of seed, formed by the superfluous nutriment, and by fluids constituted of materials, proceeding from all parts of the body, and especially from the most essential, the Nerves. Of these two seed, the stronger beget Males, and the weaker Females. In the act of gemation, these seed become mixed in the Uterus, and by the influence of the heat of the organ, they form the new individual, by a kind of Animal Chrystallization, male or female, according to the predominance of the stronger or weaker seed. This Opinion has also been maintained by Buffon, tho' with some slight modification; according to him, there exists in nature two kinds of matter, the living and the dead; the former perpetual & changing during life, and consisting of an infinite number of small inorganic molecules. He conceived, that the seed of both sexes, are formed of these

molecules, obtained from every part of the system. And the commixture of these seed, during a fecunding copulation, the same force that assimilates the organic molecules to the parts of their body, for their nourishment and increase; which Needham has termed vegetable force, causes them in this hypothesis, to congregate for the formation of the new individual: and according as the molecules of the male or female predominate, so is the embryo, male or female. Aristotle's theory denies the existance of semen in the female. He imagined that the material parts of the embryo were formed by the menstruous blood, and that the semen of the male furnished it with the principle of life, by the operation of which, it was brought to perfection. This last hypothesis, appears to be absurd, from the foundation of it; particularly, when he attempts to explain, what is common to all animals, by a circumstance peculiar to one class. Another equally strange opinion recorded is, that of Pythagoras; who supposed, that from the brain and nerves of the male, a moist vapour descended in the act of coition, from which similar parts, of the embryo were formed. These were thought to be the seat of the soul and of course, the parts from which all the senses were

derived. All the grosser parts, he supposed were composed of the blood and humours contained in the Uterus. And he also imagined, that the embryo was formed in forty days, but that seven, nine, or ten months were required for the perfection of the foetus, according to the laws of harmony. He further said that the same laws which guided the formation of the foetus, influenced the conduct of the man. Galen imagined that the embryo was formed by the substance of the male semen, and that of the humours supplied by the female, served the mere purpose of nourishing it. We now consider the hypothesis of Fabricius, and afterwards advocated by Bonnet, Spallanzani, Haller, and Hunter. Fabricius made a number of experiments on the spawn of frogs, and some other animals of a similar species. By these, he supposed that he had shown the foetus to exist in the female. And having seen in the ovaria the spawn capable of impregnation out of the body; and in contemplating the phenomena of extra uterine foetuses, very rationally concluded, that the semen is transmitted to those organs. And they supposed the most probable root through which it could pass, was through the Uterus and Fallopian tubes. This theory was for some time dis-

cured by the discoveries of Leeuwenhoek - The animacules, which he discovered in the male semen, made a deep impression on the minds of the Physiologists - they supposed them to be the Human race in miniature - But the great difficulty of accounting for the generation of hybrid animals, together with the discovery of similar animacules in most of the excretions of the Human body sunk it into obscurity - The theory of Haller resumed its former attraction, and was for many years taught in most of the schools of Europe -

To this Opinion succeeded that which was first taught publicly by Dr. Johnson, in his System of Midwifery in the year 1769 and several years afterwards, strenuously advocated by other writers - The Opinions of these men are that the semen does not pass thro' the Fallopian tubes in going to the Ovaria; but that it is absorbed from the vagina; carried into the circulation and by the exhalent arteries deposited in the Ovaria -

The sympathetic theory was first advanced by Dr. Haighton of London and followed by writings of a much later day - Dr. H. says. The semen first circulates vagina, os uteri, cavity of the Uterus or all of them - By sympathy the Ovarian vessels enlarge, pro-

-ject, and lust. By sympathy the tubes incline to the Ovaria, and having embraced them, conveys the rudiments of the Foetus to the Uterus. By sympathy the necessary preparations are made for the formation and growth of the Foetus. And by sympathy the breasts furnish milk for its support after birth. Fallacious as some of the remarks of Haighton's are, do not when taken alone disprove the fact for which we contend. The marks of Conception, which he conceives to have taken place in consequence of impressions made on the Vagina are not infallible. After viewing these many ~~xxxx~~ hypothesis we will pass on and attempt a few remarks in relation to this subject, which appear to be totally well substantiated and conclusive viz. That the semen is absorbed and carried into the general circulation, and ultimately deposited on the Ovaria. And that is be infer. from its indispensible agency in the Ovaria. Secondly, from the improbability of its passing by any other route. And that Conception takes place in the Ovaria is abundantly proved by the cases on record of Foetuses being found in them. Mr Maurice in the Philosophical transactions gives a case which bears a sufficient analogy—

We discovered a Foetus about as large as a man's thumb perfectly disconnected from all the surrounding parts, the right Ovarium was enlarged, its investing membrane ruptured, and every appearance as if the Foetus had just escaped from its substance. We have also seen a case cited by Dr. Fern, where a dead body of a woman, who supposed to have been three months gone with child in whose Ovarium the skeleton of a Foetus was lodged. These two cases are but few, but few of the many facts that have caused a pretty general belief, that this (Conception) or the process of it, commences in the Ovaria and its appendages. And that the actual presence of the Male semen is indispensibly necessary, we infer from analogy. In the Frog this phenomenon is strikingly apparent, and that the deposit made by these animals of the female sex, must be made in the presence of the Male; in default of which would cause the fluid to grow putrid like dead animal matter. But if this fecunding operation be made in the presence of the Male Animal, millions of new beings soon make their appearance. In this species there is no vagina to receive the semen, nor any penis to inject it. Then it may be said that man

is not a Fish, nor a Frog, and that analogy is fallacious. In reply to this, we would merely observe that the same Muscular power that gives agility to those little Animals, gives graceful movements to the Beautiful bird and enables each to enjoy themselves in their different but natural exercises. Each nerve gives them sensibility: the same blood is necessary to keep their vessels in motion, which requires the same Air to Oxygenate it. The Bile, Urine, and Feces all bear their same part in their economy. Much has been said in relation to the Corpora lutea of the Female. Haller indulged an Opinion, which was maintained by Haighton, that the presence of the Corpus luteum furnished "incontestable proof" of a previous impregnation. This belief in conjunction, with the fact of the division of the Fallopian tubes, prevented impregnation in Haightons experiment; and which led him to the strange conclusion that the semen penetrated no farther than the uterus; where the process of dumpathy takes place, whose general hypothesis we have already stated. Blumenbach, and Buffon, observations, prove certainly, that the Corpora lutea have been formed, when no semen had been applied to the Vagina, to cause the local impression to which,

they attributed such wonderful powers, and to which they attached so important a chain of consequency. Dr. Blundell cites a striking case in opposition to this theory with decisive, and argumentative proof. Sir Bernard Home has satisfactorily shewn that Corpora lutea exists in the female, independent of impregnation. This last position is confirmed by writers of the present day. In that, we do at once infer that Corpora lutea are no conclusive marks of Conception. Among the many strange hypotheses on this subject, we infer the actual necessity of the actual Contact between the semen and Ovaria, and that absorption with circulation is requisite in producing the new and living being.

This conclusion appears to me evident from the situation of the Uterus and its appendages. As this viscus is situated between the bladder and rectum, and of course liable to many changes of positions. When the rectum is distended, the body and fundus Uteri, will be pressed towards the Perineum, and Os Tincae turned towards the Symphysis Pubis. But in women who have born many children, the Os tincae projects towards almost to the labia externum. By these impediments the Urethra is prevented from coming into direct apposition

with the orifice of the Uterus. To this illustration might be added many equally conclusive. De Graff and Harvey dissected a great number of Animals with the express view, of ascertaining the existance of semen immediately after coition, without the slightest perception of semen existing in the Uterus or its appendages. Haunner dissected for the same purpose, which also terminated in the same results, except in one instance; and then he was not positive. Kuysch relates a startling case illustrative to this view; when he says, that he was called to a woman in labour whose Hymen he found imperforated. In addition to this he discovered in the same woman an Anomalous membrane that completely obstructed the Canal of the Vagina. Superfetation appears to settle this point sufficiently well. Among the cases cited is one of Smellie; "he says, that a woman 6 days after delivery of a full grown child, miscarried a Foetus that appeared to be 4 or 5 months old. There was no putrefaction, altho' it was still low. It had no hair nor any other marks that indicated a more advanced age. But the question remains whether or not that the Foetuses might not have been conceived at the same time, altho' they differed in size? Though in opposition to this might be not a fact, that there was not discoverable marks

of age in Foetus and well as in Children - whether their extremities are not more proportionate to their bodies in the Foetus than the full grown Child; and that of hairs shooting from the heads of those that have gone their full period of time - we would suppose from these marks we would be able to distinguish the sickly undeveloped or life thriving Child from the young, tho' full grown one.

In relation to the hypothesis advanced that the semen being carried to the Ovaria through the medium of the Fallopian tubes, and returned to the Uterus; appears to me fallacious, as it would be imparting to them a power truly singular, and hypothetical - As we deem it superfluous to quote more theories on this much (and will be) speculative subject, we will say a few words in relation to the manner in which the semen is taken up by the circulation, and carried to the Ovaria, after undergoing a change peculiar to its purpose - When we notice the delicate membrane which lines the Vagina, seems well calculated to favor the process of absorption & circulation - In its structure it bears a resemblance somewhat to that of Eye lids, and Nostrils - which we have learned from the ready absorption of venomial, or

small poxvirus acting upon those membranes, thereby producing the disease to which the virus is adapted. But we might ask how the whole system becomes affected by this virus. Is it not? or would we not conclude that it was produced by the general Circulation? There has been much said in relation to the condition of this organ at or previous to the period of coition. Bell says, that there is a slight degree of inflammation existing for the purpose of facilitating absorption. This view has been sustained by other writers, even some two of the present day. This position, we do confess, & appears to be somewhat strange or singular, as in the time of health, there should be disease both existing in the same being at the same time. We do infer that it is a stimulating, or natural excitement existing in the sensual orgasm at the time of Coition. The semen when ejected from the urethra soon liquefies, and by these means is readily presented to the patulous mouths of all the vessels that are spread throughout the vagina. The qualities of the semen is a mild, bland fluid; in a word such a substance as we would suppose well calculated to pass through the system, without occasioning much inconvenience. The viscidness

at the stomach, and vomiting are such as we should expect. These symptoms are much the same as are frequently occasioned by the injection of extraneous substances into the veins - the active digestive powers of the Lymphatics, has been frequently urged as an objection to this hypothesis. But the smell of Copaiva, Garlic &c. in the breath; the Oil of Turpentine in the urine, and the smell of urine in the breath of patients who have been afflicted with long continued strangury which frequently occur; and which are sufficiently conclusive in support to the digestive powers of absorption - Spallanzani's experiments on the digestive powers of the stomach of birds, evince that after extreme dilation, it still retains its power. But the great, and important part of the process, by which the semen acts when it has reached its place of destination, is yet a point of much speculation - We have cited many hypothesis, it is true; and with but little satisfaction to advantage; but if we do not profit by the knowledge of these authors, we may acknowledge, or at least be convinced, that little has been said hitherto on this subject for general information.

An Inaugural Dissertation on Aneurism.

Submitted to the examination of the Provost, Trustees & Medical Faculty of the University of Maryland, for the Degree of Doctor of Medicine.

by

Meredith L. Cockey

of

Frederick County

Maryland

1835.

An Inaugural Dissertation on Aneurism.

Submitted to the Examination of the Provost, Trustees, & Medical Faculty of the University of Maryland, for the Degree of Doctor of Medicine.

by

Joseph C. Cockey,
of
Frederick County,
Maryland.

1835.

When we contemplate the present condition of the different branches of medical science, and compare them with each other, we shall find that none of them have made greater progress towards perfection, or present a more noble & attractive character, than the Department of Surgery. Its practice, confined at first to the mere empiric was, as may be supposed, for the most part unsuccessful; but guided at the present day, by many, and successive improvements and discoveries in Physiology, and Pathology, it has become a science of the noblest order, an art which daily dispenses its blessings to thousands of the afflicted and distressed. Its results are the most pleasing and satisfactory in their nature; for what can give more happiness and satisfaction to a benevolent mind, than to rescue our fellow beings from the agonies of disease, - to prolong the period of existence - and frequently to save them from immediate destruction.

In no disease is the triumph of Surgical science more strongly manifested than in that of Aneurism, a subject which I have selected for my inaugural dissertation. I am well aware that nothing new can be offered, I shall therefore content myself by describing its nature, treatment, & varieties as laid down by the most approved authors. —

An Aneurism may be defined a tumour which is generally pulsating, formed of arterial Blood. It will be seen in this definition that I do not include morbid dilatations of the heart, to which this term has also been applied, but shall here confine it to the diseased condition of the arteries only — from the different states in which the coats of the vessels have been found to be affected. Thus when all the coats of an artery are dilated, it has generally been called True Aneurism, although this term has been applied to cases where the two internal coats alone are affected. By False Aneurism is meant that state in which one or two inner coats are dilated, or where all the coats are enlarged. It must be evident that these divisions can be of little practical utility, inasmuch as the condition of the parts is constantly changing; thus when the internal coat is destroyed, very little time will elapse before the others participate in the morbid affection. —

A more natural and useful division would appear to be into Spontaneous & Traumatic. — By the first is meant, Aneurism from disease located in the artery; By the Second, those cases which are produced by accidents, such as Cuts, blows, over-exertions in lifting &c. operating on an artery previously healthy. As in those accidents all the

arterial tunics are divided or ruptured, the tumour can only be formed by the blood effused into the surrounding parts, and then parts themselves, which from the pressure, are irritated, and augment considerably in volume. The terms Circumscribed & Diffused relate only to the form of the swelling and extent of the extravasation. Varicose aneurism comes under the head of false or Traumatic, as it is caused generally by a puncture of the Lancet in venesection, thereby establishing a communication between the artery and vein. It is generally diagnosed by the same phenomena which attend aneurism seated in any other part of the body. Other divisions have been adopted by some Surgeons, but the division we have made into those sanguineous tumours which are the result of disease in the artery (Spontaneous) and those caused by division or rupture of the coats by accidents (Traumatic) is the only one of any great practical importance.—

Symptoms of Spontaneous Aneurism. The patient at first very generally experiences an uneasy sensation in the artery, and on examination, a small tumour may be detected. If the circulation is accelerated from any cause the uneasy sensations are increased; in some cases however, the tumour may exist for sometime without the knowledge of the

patient. When we examine a tumour of this kind attentively, we discover that it pulsates, is soft, circumscribed, and the parts covering it are not altered in colour or painful. We observe moreover that it is dilated by every contraction of the heart, and that its motion is simultaneous with that of the arteries in every part of the body. Pressure on the cardiac side arrests, or generally arrests its pulsations, & diminishes its volume: if on the contrary we apply pressure on the side farthest from the heart it acquires an augmentation of volume. On raising the finger from the tumour after pressing on it, a whizzing sound, or what has been called the aneurismal thrill, is produced. - The volume and increase of the tumour depends upon the force and energy of the heart's contractions. It is therefore liable to be greatly increased by mental emotions, which should be carefully avoided, as well as by physical exertions. Sometimes aneurisms remain stationary for a considerable time, but at others owing to the operations of the above named causes, they augment greatly, with aggravation of all the symptoms, and owing to certain changes taking place in the sac itself, as well as from pressure on important parts, new morbid phenomena now make their appearance. The pulsation is diminished or entirely

annihilated, the swelling is now firm and unyielding ~~from~~ from pressure on it, or on the artery above, occasions very slight decrease of its magnitude. If we carefully examine the artery above the aneurism, it is found enlarged, but hard, the pulse is very weak and feble: the limb is colder than natural, showing evidently that the circulation is impaired. The deficient heat in the limb is likewise owing to pressure on the nerves of the part affected, and occasionally very painful sensations are experienced. When the aneurism is very large the functions of the vessels and nerves are still more deeply deranged; there is great coldness, a varicose condition of the veins, and from the pressure on the great lymphatic trunks, the limb becomes oedematous, and sometimes loses its vitality altogether. Sometimes if its progress is not arrested, it goes on increasing, the parts from pressure are rapidly absorbed, and in this manner cartilage, bone, muscle and cellular tissue are successively removed, until finally by some exertion of the patient, the tumour bursts, and torrents of blood gush out, overwhelming the sufferer and causing him to expire almost instantaneously.

Diagnosis.— Aneurism may generally be distinguished by its peculiar thrill, which may be compared

to the sensation produced by drawing a fine file over the finger nail, more nearly than to any thing I can refer it to; also by compression, as employed in the manner already mentioned; the difficulty of diagnosis also depends in a great measure upon the location of the aneurism. If it be seated in any of the great cavities, it may exist for sometime without the patient being aware of it, or it may produce many very anomalous and inexplicable symptoms. It has happened, that the patient has been treated for some other disease in consequence of its anomalous symptoms being thus situated, and the patient has fallen dead suddenly. An aneurism when seated in the Thoracic aorta, occasions great dyspnea, livid countenance, sometimes tumultuous & violent action of the heart; when in the brain it causes coma, convulsions and other derangements of the nervous system, and when seated in the Abdomen the functions of the viscera contained in that cavity are greatly deranged. In these cases much assistance will be derived from the use of the Stethoscope. It is only by a very careful examination of all the circumstances of the case that we can determine its presence. In the abdomen however from the softness of its walls a pulsating tumour may be detected by the hand, applied over that region.

An aneurism seated on the extremities the diagnosis is attended with little trouble, but even here unless we are well acquainted with the relative anatomy of the region in which it is situated, we should be very liable to confound it with tumours of a different character, such as abscesses, enlarged glands, & encysted tumours of various kinds. Tumours situated over large arteries generally have a pulsating motion communicated to them by the artery beneath; in this case we should endeavor to elevate the tumour from the artery, or turn it to one side, when the pulsation disappears. The state of the artery above and below the tumour should be examined, pressure should also be made at these points. It has been remarked that in aneurism the swelling or enlargement of the tumour takes place in every direction when the heart contracts. The tumour is not merely elevated, which is the case when it is owing to other causes. If the tumour is on the neck and is observed to follow the motions of the larynx & trachea, we conclude that it is not aneurism, at least of the carotid, when the tumour is seated in the sheath of an artery, it is very difficult to distinguish its nature. An abscess & aneurism have been known to exist together; in the latter cases it is almost impossible to determine, and if, after carefully

examining into the history of the case, and attentively considering all the circumstances we cannot decide, it has been advised to wait until the progress of the symptoms reveals more of its nature. Some surgeons have advised in these difficult cases to puncture the tumour, and if it is an aneurism then to operate.

Causes of Spontaneous aneurism.— On examining aneurisms arising from disease originally seated in the artery, we shall find the coats of the vessel exhibiting very different appearances in different subjects. The internal or serous membrane seems to loose its vitality and is covered by osseous scales, sometimes it is ulcerated or ruptured, similar degenerations and consequent impairment of function take place in the other coats, by which the cohesive force is diminished, they yield to the stimulus of the blood and dilatation or aneurism is thus effected. It was the opinion of Scarpa that in all cases of spontaneous aneurism there was rupture and dilatation of the internal and middle coats; this however has been found not to take place in all instances, but it does generally occur, and always when the aneurism is of much magnitude.—

It is worthy of remark that common inflammation does not occasion these changes in a

healthy artery. The experiments of Jones, Hunter and others have proved that the artery may be deprived of its external coats even to such an extent as to allow the blood to be seen through it, and yet aneurism be not produced. In other cases where, from the application of ligatures the internal and middle coats were cut through, yet dilatation of the external was not occasioned; but in both cases the adhesive inflammation took place, the coagulable lymph was effused and became organized & a thickening of the parts in the immediate vicinity was the consequence. In these experiments the canal of the artery was often found diminished. It appears from these experiments & their results, that we cannot attribute dilatation to acute inflammation, at least where it is only of ordinary intensity. Should this occur, ulceration of the coats may ensue and occasion the opening of the artery and consequent escape of blood. Some have attributed these changes in the artery to chronic inflammation and it is not improbable that some of them are really occasioned by it, but in the majority of cases it is owing to a vitiated nutrition in the arteries and to perversion of secretion. This seems to be confirmed by the fact that in

cases of spontaneous aneurism we may observe a cachectic condition of the system, together with frequent and great derangement of the digestive organs.—

The situations of certain arteries would seem to predispose them to aneurisms; thus the arch of the aorta is subjected to the violent impulses of the blood coming from the left ventricle, and we often find them occurring at the flexures or curves of the arteries where a similar impediment exists to the passage of the blood. The arteries are more frequently found diseased in old persons than young, and it is not uncommon to find the serous membrane, particularly of the aorta, lined with osseous scales & exhibiting other degenerations. indeed this part of the aorta for the reasons above stated, is more frequently the seat of spontaneous aneurismal tumours than any other in the whole body. The artery when thus diseased and its elasticity thus impaired, yields readily to the increased impetus of the blood, caused by straining lifting, running or indeed any violent muscular exertion & therefore giving rise to its more frequent occurrance in men than women.—

Prognosis.— This must vary according to circumstances, if the disease is seated in any of the large cavities of the body, it is much dangerous, as it

frequently interests organs essential to life and is farther removed from the hand of the surgeon, therefore, only indirect means can be resorted to; such however is the improvement of our science that many internal aneurisms have been successfully treated by ligatures, among which may be mentioned the internal, external and Common Iliacs. Even the abdominal aorta has been secured in a ligature although the result of the operation was unfavorable.— If seated on the extremities it is much more favorable because it is more easily approached. In all cases however it is well to examine into the constitution of the patient thoroughly before operating, and particularly the state of the other arteries, as there may be a similar diseased or dilated condition of them all, in which case an operation would be of little utility.—

Treatment.— The treatment of aneurism of the heart or aorta is necessarily solely medical. As the dilatation of the diseased artery is dependant on the impulse of the circulating fluid, we should endeavor to moderate the force and violence of the heart's action; this is effected by venesection, repeated according to the plethoric condition of the individual, gentle purgatives, perfect rest, and in particular, avoidence of all mental emotions: the patient keeping himself as quiet and undisturbed as possible, and only taking as much exercise as is necessary for the maintainance of his general health.

Valsalva, who rigidly pursued this course, abstracted blood very copiously and restricted his patients to a quantity of food merely sufficient for the bare subsistence of the individual. Although we should be extremely cautious in the diet &c of the patient, and liberal in the taking of blood in sufficient quantities, we should nevertheless not fall into the opposite extreme & deplete too copiously. It has been satisfactorily established by Dr Marshall Hall, and confirmed by daily experience, that after copious depletions by bleeding & purgatives, there ~~of~~ ensues a violent and tumultuous action of the arterial system, and it is easy to conceive the bad effects this might produce. In cases of aneurism the tumour would yield to the distending influence of the blood, and all the symptoms would be greatly aggravated. In some cases we may succeed by the method here laid down, but much more frequently it fails, and the disease progressing with frightful rapidity, the patient is finally destroyed by hemmorage. When we do succeed in effecting a cure by medical treatment, or when the disease is cured by the efforts of nature, the change ~~which~~ takes place in the parts, would seem to be this. The blood being impeded in its progress, coagulates in that part which is most remote from the natural canal or channel of the artery, after a short period another layer is added, and so on, until the walls of the tumour from their thickness resist the impulse of

the blood, and the coagulation of this fluid still continuing, the calibre of the artery is closed up. After a time, the red particles of the blood are absorbed and the fibrin remains; subsequently the artery is found to be hard and fibrous, allowing no blood to permeate it. Although the trunk of the artery is no longer pervious, we shall find that the vitality of the limb is still preserved by the anastomosing branches, by which a collateral circulation is kept up. As the disease progresses these vessels are observed to enlarge and this in proportion to the difficulty of transmission through the main trunk. It is occasionally observed that the orifice of the artery communicating with the sac is very much thickened by chronic inflammation, so as to obstruct the progress of the blood, or it may happen that this effect may be produced by the tumour meeting in its progress with some very hard or resistant organ, which opposes its dilatation. It has happened sometimes that this inflammation terminated in gangrene, the parts sloughed, the blood coagulated & extended some distance in the canal of the vessel, thus completely plugging it up, adhesive inflammation took place and finally a permanent closure of the artery was effected.

When the efforts of nature and the medical treatment (above alluded to) are not sufficient to arrest the disease, we must resort to surgical aid; if the aneurism is at all accessible to the hand of the surgeon. Many means have

been resorted to by surgeons, such as bandages, compressors &c to diminish the quantity of blood in the sac and thus prevent coagulation. Although these sometimes succeed, they more frequently fail, and we must look to the operation as the only certain remedy.

The operations performed by the ancients was to lay open the sac, remove the coagulay and tie the extremities of the vessel above and below the tumour. the cavity of the tumour was then filled with lint. It was easy to conceive that pernicious consequences would result from this operation, as the ligature was applied to a diseased portion of the artery, and great inflammation and sloughing of the parts would ensue, attended by secondary hemorrage. The operation as it is performed at the present day by the best surgeons is that of Hunter; to this distinguished man we are indebted for this great improvement, which was founded on an accurate acquaintance with physiology & pathology. His method consists in applying the ligature to a healthy portion of the artery above the tumour and using a single ligature. By this means the blood is prevented from entering the sac, and that which is in it, is coagulated, and subsequently absorbed. The internal and middle coats are divided by the ligature and coagulable lymph is the seam out which becomes organized, and the two sides of the

vessel thus adhering, the canal of the artery is completely and forever obliterated. The coagulum ordinarily extends as high as the first anastomosing branch, which gradually becomes enlarged, and thus the circulation is completely restored. Shortly after tying an artery for aneurism, the limb below is colder than natural, but when the anastomosing branches become sufficiently dilated to convey the blood to the limb below the tumor, the heat is greater than natural, this however gradually disappears.

The advantages of Hunters method are very apparent, we do not have the same danger from ulceration of the artery, the intense inflammation and sloughing are avoided, and the pain and difficulties are trifling when compared to the old plan.

Before operating (as we said before) we should always carefully observe the system of the patient and ascertain particularly the condition of the arteries; should they generally be diseased nothing but the rapid progress of the tumor should induce us to operate. — It is not advisable to operate when the tumor is first discovered or rather in its state of incipiency, as then the anastomosing branches are not sufficiently enlarged, but should however endeavour to operate before the tumor becomes large, because sloughing and secondary hemmorage very often follow in such cases, and moreover firm

pressure, the collateral branches may be obliterated. In cutting for the artery we should always endeavor to secure it where its anastomosing relations are least complicated. We should first cut through the integuments and superficial fascia, or cellular tissue, then cautiously divide the parts till we arrive at the sheath in which the artery is contained; the sheath is then to be pinched up with the forceps and a small transverse incision made in it, and then if necessary, we may raise it on a director and divide it upwards or downwards; we should always be cautious in separating the sheath from the artery, that we denude it but to a slight extent, merely sufficient to pass the needle without embarrassment, as the nutrition of the vessel would be greatly impaired (from injury of the vasa vasorum) and ulceration and hemorrage would be the consequence. After the ligature is applied, one thread is to be cut off, the other left hanging out of the wound, the most then nicely close the wound, and endeavor to promote adhesion by the first intention.

Traumatic aneurism.— In this species the walls of the tumour are not formed by the coats of the artery, but always of the sheath of the vessel, or the parts exterior to it. It is caused by injuries or accidents as cuts, blows &c, operating on a healthy artery, or causing division or

rupture of its coats. When a wound of small extent is made in a healthy artery it may be entirely cured by the efforts of nature, but when an artery is divided in a considerable portion of its circumference, or is of much magnitude, the hemorrage is often violent and obstinate, and though commanded for a time, may frequently recur, or the blood being obstructed in its exit from the wound, a pulsating tumour may be formed. In all cases of division of the arterial coats it is owing in the first to effused and coagulated blood in the wound acting as a barrier to the passage of the fluid, and ultimately to the pouring out and organization of the coagulable lymph, that hemmorage is prevented, restoration of the part effected, or aneurism produced; for in cases where the latter is occasioned coagulable lymph is poured out around the wound in the artery, some blood is also effused between the artery and its sheath, this latter becomes gradually distended, and owing to the irritation it occasions in the surrounding parts, fibrin is deposited both in the artery and inner surface of the sheath. As the tumour increases the walls become thinner in consequence of absorption, and the same changes ensue as in spontaneous aneurism, The tumour is pulsating and the same peculiar thrill may be observed as in the other species.

Treatment.— This varies according to the stage and size of the aneurism. When it is of short standing, and seems to be rapidly enlarging, it will be most advisable to lay open the tumour, find the orifice in the vessel and tie it above and below the place where it was wounded.— When it is of considerable size and has slowly increased, it will be better to tie the artery above the tumour; as too much inflammation, and perhaps sloughing would be the consequence.—

There is a species of aneurism called Varicose, which is produced by puncture of the lancet, generally at the bend of the arm. The vein in this region lies directly over the artery, being merely separated from it by the brachial aponeurosis. If the operator should plunge his instrument too deep, he may cut through the vein, the fascia of the arm and the artery, the parts being in close contact: the blood is forced from the artery into the vein, and may gush from the latter vessel with considerable force. The hemorrage may be arrested by compression, and the sides of the vein unite by the first intention, but the communication between the artery and vein still exists, and a pulsating tumour is formed. As the coats of the vein are very distensible, this vessel becomes much dilated, the tumour in the vein

extending generally to the first valve, on compressing the artery above the tumour, it diminishes, and the pulsation is arrested, but when we let go the artery it instantly resumes its former appearance, and on placing the hand on the tumour, we recognize the peculiar aneurismal thrill. When the operator discovers that he has opened the artery, he should close the vein and make firm pressure over the orifice, by a graduated compress and bandage, this alone sometimes succeeds; should it not we must resort to the operation of tying the Brachial artery above the tumour. A very interesting case of this variety of aneurism I had an opportunity of observing recently, at the Baltimore Infirmary, in which Professor Smith with his usual dexterity operated; the tumour becoming obliterated in a very short period.—

Inaugural Dissertation

On Chelsea Hyperthermia.

Submitted to the Examiners

Of the Newark Medical

Studies and Medical Faculty

Of the University of Maryland.

For the degree

Of Doctor of Medicine

By Edward M. Mercer.

Of Wheeville, Virginia.

An

Inaugural Dissertation.

On Cholera Infantum.

Submitted to the Examination.

Of the Honorable Provost,

Trustees, and Medical Faculty,

Of the University of Maryland,

For the degree,

Of Doctor of Medicine,

By Edward. H. Henry.

Of Upperville, Virginia.

— 1835 —

1.

Professor Nathan. R. Smith.

Sir.

Permit me most respectfully to inscribe to you, the following essay, not merely because you are the Professor of Surgery, in the University of Maryland, but in consideration of the very high estimate, I place upon your talents, and qualifications, in the performance of the important and arduous duties, of that chair, As well as for the great care and solicitude, entertained by you, for the progress and advancement, of those gentlemen who have had the honor of becoming your private pupils, during the present Session — As one of them — permit me, on the present occasion to tender you my most sincere and grateful acknowledgments —

E. H. H....

To

Charles. E. Isaac's. M.D.

Sir:—

Allow me most sincerely and affectionately to dedicate to yourself also, the following dissertation—As a slight token only, of the sincere regard I entertain for you, not only on account of your numerous virtues, ~~[illegible]~~, but in consequence of the veneration, I have for your talents, and acquirements, in the science of Medicine, in its multifarious and complicated branches, or departments—That a gale of prosperity may attend you through life, and that your usefulness, may be continued to your fellow beings, for a long series of years, And that you may be prosperous and happy, is the most sincere and ardent desire of your affectionate friend—

The. Author—

Cholera Infantum

This is a disease almost peculiar to the climate of the United States. Children of other countries are during dentition liable ~~to~~ from other causes, to various affections of the alimentary canal, all of which differ from our Endemic. — Causes — Marsh effluvia which covers so wide a field, in the Philosophy of causes has been enlisted to account for this among a tribe of other diseases — There are many considerations however that would lead us to conclude that Malaria has no agency in the matter; and that there is another more natural and authentic source to which alone it can be referred — In the first instance Cholera appears as the first indication of the diseases of summer, even in May when the impression of heat is strong and sudden before the process of vegetable putrefaction can evolve any gaseous emanations — The process by which the diseases of autumn are generated is much ~~xxx~~ slower and accordingly we find the children's disease in full operation while there is not an intermittent or remittent to be found

Among the early cases of children there are no intermittents or remittents in adults except occasionally an individual who has carried the predisposition through the winter from the preceding autumn — The symptoms of the two diseases present so many discrepancies that they cannot be identified by any reasoning that ingenuity and sophistry can invent. — The summer disease is never preceded by a formal chill and never intermits even when it indistinctly resembles a remittent it is not subject to distinct exacerbations and is not mitigated by a periodical sweat — The type of Cholera Infantum is more continued is attended by less heat which is more generally diffused in the Paroxysms of Miasmatic fevers — The tongue is less changed in Cholera and while it is white is less prone to become brown or yellow than in a mitting fever — A. Symptomatic diarrhoea does not properly belong to the diseases of Malaria and when it does occur it is in autumn under the influence of a high temperature and in all such cases, it presents the aspect of a compound affection, the result of the

two causes combined – This compound disease is not so common in our country as in some others, it has been well described by Dr Wade of Bengal – The total failure of the remedies so successfully employed in intermittent diseases shows a very real difference in their pathology – Tonics and all kinds of stimulants are utterly unavailing during the incipiency symptoms and are only incidentally necessary as corroborants – If the miasmatic theory were founded on fact the removal of children within this sphere of Malaria must of necessity impregnate some of them with the cause and intermittents would be the result – That this is not the consequence every observer can testify – They are never found epidemic at the same time or in the same place – Other Etiologists assert and contend that the cause is produced by a deficiency of Oxygen in the atmosphere rendering it physically impossible for the lungs to perform their office in Oxygenating the Blood – Blended by this (Theory) ion they propose to increase the quantity of vital air by artificial means – Some of these ~~visionary~~ Pathologists have so transported with this

scheme that they invented an apparatus for propelling for the purpose of manufacturing and diffusing oxygen in a more concentrated form through the apartments of children in summer — This fanciful theory was suggested by Dr Beddoes he having previously obtained in this way a successful victory over some other diseases in a highly oxygenated atmosphere — The friends of this doctrine were scarcely favoured by a shade of analogy and the theory evaporated almost without an experiment Worms were formerly supposed to have been one of the principal sources or causes of this disease — But this fallacious opinion was successfully refuted by the learned Dr Rush at an early period of his history —
But without enumerating farther the various Hypotheses which have been set up and flourished for a time concerning the origin and cause of this disease — It will be only necessary to say that it is now almost universally admitted by all practical and modern writers on the subject that the true cause is heat or high atmospheric temperature acting upon the delicate and

sensitive nervous systems of children — If we refer to the character of our climate it will show why Cholera is so much more clearly defined in this than in other countries — It is not only more variable than any other but the vicissitudes are more frequent and the changes of temperature greater and more sudden — The disparity between winter and summer shows a contrast to which there is no parallel in any other country — The low temperature of winter accumulates the excitability and renders the diseases of Spring and summer more positive and inflamatory in the middle States, than they are in any equal area in either continent — In addition to this we have no gradually opening Spring but a sudden influx of heat in the latter vernal months which constitutes a sudden transition to summer — In whatever part of the sentient system the matter of heat makes its first and greatest impression it disturbs the healthful economy — of many of the most important functionaries of the body and through them indirectly inundates the whole system —

It exerts a deadly influence upon the brain either through the lungs or by its action on the capillary system or both and in many cases the sensorium commune is one of the principal seats of disease and its implication may often be the cause of death. The stomach the great sentinel; the receptacle of all the materials to be manufactured for the sustenance and growth of the body, is equally sensible to the cause and reflects disease to almost every other department — The intestines are deeply involved in the morbid process — and almost all autopsic examinations discover the ravages of inflamation and explain one of the most remarkable symptoms the excessive heat over the surface of the abdomen while other parts especially the lower extremities are far below the natural temperature — They are intimately associated with the liver and the whole portal circle becomes involved — Besides those predisponent effects which may alone evolve the symptoms

The infantile stomach abounds with a morbid acid which further disarranges its functions and more over the predisposition—

Symptoms—

Cholera Infantum makes its appearance in various ways—In some instances it comes on as a simple diarrhoea though the stomach is always apt to be affected, and in its more violent forms there are vomitings and purgings attended by no inconsiderable spasmodic uneasiness constituting the cholera morbus of more advanced life—In its ordinary forms the fever which soon supervenes is of an irregular remittent character, the exacerbations being highest in the evening the pulse is usually small, quick, and feeble, or irritated and corded but rarely full, strong or voluminous—There are Determinations to the brain at least this organ seems early to be affected sympathetically as is manifested by a tendency to

stupor or delirium or sometimes even frenzy — The eyes also denote this cerebral affection they are either fixed or languid in expression — and when the patient sleeps are half closed — Thirst is intense and for a time nearly unquenchable, cold water is clamorously demanded but if swallowed is instantly rejected — an unequal disturbance of temperature exists — The head and region of the stomach and bowels being hot while the extremities are cold — The appearance of the evacuations from the bowels are various — The natural feces are mostly retained though occasionally small lumps may be found involved in the other discharges, These are sometimes thin and watery and at other times more thick and tenacious consisting chiefly of stringy or mucous occasionly tinged with Blood — The colour may be green, yellow, white, or brown, and may be inodorous or exceedingly offensive — usually however the smell is that of sourness or putridity — The irritability of the alimentary canal

is sometimes so great that the ingesta rapidly pass off unaltered as in tenesmus — The skin on the forehead is tight as if bound to the bone; the eyes are sunk, the cheeks fall in, The nose is sharp, and the lips are shrivelled, — The abdomen becomes tumid from a flatulence, the feet still more frequently are oedematous, aphthæ appear, the mind as well as the senses which hitherto may not have been impaired are now obtuse or so entirely lost that the child lies unmoved by ordinary excitement — and will even allow flies to light on the face without being disturbed — There is one symptom which is mentioned by a very distinguished writer on this subject which when it occurs is pregnostic of an immediate and fatal termination It is a Chrystalline eruption upon the thorax of an immensity of watery vesicles of a very minute size — The best idea to be conveyed of them is to imagine an immense number of vesicles apparently produced by flinging an equal number of very minute drops of boiling water upon

the surface of the skin and each particle producing its vesicle — another very characteristic symptom which frequently attends the last stage of this disease much more common than the one just stated but not less fatal is the thrusting of the fingers into the back part of the mouth as if desirous of removing something from the throat — There is also another which is the escape of a live worm or worms in the chronic stage of this disease if the worm comes away and there is nothing in the circumstance but if alive its is said to be ~~a deadly~~ fatal symptom

Treatment

In the commencement of this disease there is naises. Thy a very disordered condition of the digestive canal and the evacuation of the stomach and bowels is of primary importance and to this first our attention should be early and mainly directed — We should commence the treat

treatment with mild and gentle purgatives which are decidedly preferable to others which were formerly much used — And of these the Oleum Ricini would seem to be indicated, in cases of the mildest kind. While there is little or no fever, to allay morbid irritability and suppress the immoderate and excessive discharges — the Tinct. Opii — may be occasionally added to the oil — In cases of great irritability of the stomach when it is impossible to get these or indeed any other articles to remain, it will become necessary and of the highest importance to tranquilize and allay this excitement, and for this purpose there is no remedy better and more certain than an injection of warm salt and water which may be repeated and continued from time to time until its beneficial effects are realized — If the injection operates and brings fecal and bilious discharges the stomach will instantly be quieted and relieved — It also produces a very salutary influence by its revulsive and counter irritating effects produced upon the rectum —— An effect

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Edward Edward

William A. Mathias

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My Dr. Old Chub &
Fellow

Baltimore, Feb 2 1843.

The receipt of yours of January 3d brought intelligence truly painful and distressing in the extreme, and at a time too when I was least calculated to accept such sorrowful news, owing to an indisposition which I have been labouring under for some 15 or 20 years, but lately has assumed a character which I fear will put an end to my mortality and finally finish my career here below by causing this poor old frame to succumb to the painful and truly distressing and excruciating pain attending the cancer which I am now labouring under, It will no doubt be a death blow to the animal economy — Farewell until I meet you down yonder — Abial Ezekiah

which is not produced by the ordinary laxative injection such as molasses oil and water, not being possessed of the stimulant property of the salt, upon which the virtues of the salt and water depend. The great desideratum in Cholera Infantum is to tranquilize the stomach — If the disease has been provoked by any irritating matter in the stomach itself it should be removed by encouraging the vomiting by copious draughts of tepid water, or even cold water may be given when from disgust the patient is unwilling to use the warm drinks — but in no case should we administer an emetic — For so long as nature continues her efforts to dislodge the offending substance it can not be required as she will certainly succeed if she be aided by warm drinks, and it can never be otherwise than injurious after it has cast off the irritating materials, strong coffee has been highly recommended both to very young children and also to those of a more advanced age, it is to be given without sugar or milk — In the commencement of this disease the temporizing remedies such

as the alkalies, absorbents or external irritating applications are of no utility — If the stomach has not been tranquilized by the injection or strong coffee we should commence the treatment with small doses of calomel upon the continued use of which, our principal reliance of cure must be placed — This specific if we may so term it in this disease should be given in the most minute doses possible from 1/8; to 1/4 a gr. given repeatedly during the day — Opium should never be combined with the calomel in the early or inflammatory stage — for abundant experience has clearly shown that it is best to give the calomel alone The following is a very appropriate formula for administering this remedy — ℞ Calom. pp.t gr. iij, Sacch. alb. ʒ.i M., div. in par. xii. — one of these powders may be thrown dry in the childs mouth every hour until a purgative effect is induced — which may be known by the stools being more copious, less frequent and of a dark green colour with a tenacious slime of the same ~~color of~~ colour — When this change is perceived the powders may be given much less —

frequently — After the bowels have been properly evacuated by the calomel and the child is in much pain or very much exhausted an injection of Laudanum must be given at night — These remedies are to be strenuously persisted in and continued pretty much after this manner until their decisive effects are manifested — To allay the fever and gastric distress should they supervene we should resort to Blood letting, and the application of leeches to the abdomen over the region of the stomach — If there is much cerebral irritation leeches may be advantageously applied to the head or temples — Should the stomach continue highly irritable and the legs and feet become cold much benefit may be derived from blistering them or by having them rubbed with mustard and warm vinegar or Cayenne pepper and warm Spirits till the skin is excited and action is restored to the extremities — Having at length by our remedial means succeeded in restoring and re-establishing the healthy secretions —

of the liver, stomach, and intestines, and thoroughly evacuated these organs, we should lay aside our purgatives and be content simply to keep the bowels in a soluble state unless there should be accumulations of bilious and other foulen matters and evidences of a return of hepatic torpor and congestion when we should again resort to the mercury as our chief anchor and other mild aperients — But if the irritation continue to be excessive and production of very copious discharges we may with much advantage administer anodyne injections frequently during the day after having previously applied leeches to the stomach In addition to these means we should be attentive to the remedies calculated to produce a direct impression upon the skin — For this purpose the occasional use of the warm bath is highly important — Every case of cholera of fair time is distinguished more or less by great

inequality of temperature in the circulation as much so that one part of the body may be burning hot while an other is cold — By increasing the patient labouring under this symptom it has the effect of equalizing temperature and diffusing a pleasant and salutary glow over the whole surface of the body — While other benefits are at the same time attained — The benefits of bath are however but transitory and are required to be repeated daily or even oftener — It may be rendered more effectual when there is much cutaneous insensibility by adding to it salt, mustard or brandy, and when the patient comes out by employing friction — Blisters are serviceable at any stage of the disease if unequal temperature prevail and may be applied over the stomach or extremities according to the state of the case and the more striking indications — This plan however proving unsuccessful it must be intermitted and the

bowels continuing highly irritated with bloody evacuations we may try the oleaginous preparation consisting of castor oil laudanum and gum Arabic or what perhaps is still better mutton tallow or a union of sugar of lead opium and Ipecacuanha, the lead here is occasionally very efficacious — In the course of a few days in some instances and in others a week or more the disease passes into the nature of diarrhoea which is sometimes attended with a slight degree of tormina and tenesmus — It is also usual at this time to find the stomach greatly debilitated with the loss of the power of digestion and so irritable as hardly to retain any kind of nourishment — At this time also the stools are apt to become very watery and green manifesting the predominance of acid — The remedies proper in this stage of the disease consist principally of the cretaceous and alkaline preparations variously combined — ℞, Cret. prep.ta ℥ss Gum Arabic, Sacch. Alb. aa. ℥i. Tinct. Theb. gtt. x Aq. font. ℥iii. M. — Carb. Sod. Gr. xx. Gum Arabic, Sacch. Alb. aa ℥i Tinct. Opii

Gtt. + aq. Font, ℥ iii, M. — A drop or two of the oil of cinnamon may be advantageously added sometimes to in the form of the mixtures — Milk and lime water may also be given with a prospect of advantage — also preparations of Rhubarb at this stage of this disease are productive of beneficial effects. of this the Syrup of Rhubarb may be given combined with small doses of laudanum — In the use of these preparations the dose is to be small and repeated at stated intervals so as to retain rather the tonic or astringent than the purgative effect of this medicine — As the disease advances it loses most or all of its acute and painful symptoms and becomes a colliquative diarrhoea and so profuse as to produce from ten to twenty evacuations in the course of a day — The treatment of this case is similar to that of chronic diarrhoea Combinations of chalk with the tincture of kino infusion of Gall nuts and laudanum are worthy of trial or infusion of Columbo — Hematoxylon Campechianum — and a decoction of Granati radix may all be used with advantage — The dose of each

To

The Provost Trustees Dean &
Medical Faculty

of The University of Maryland
This Inaugural Dissertation
is Respectfully Submitted for Examination

by William H. Calmes

A. 1835. — of Maryland

On Cathartics and their Modus Operandi

previous to entering into a description, or before attempting to write a thesis upon this or any other subject, whether pertaining to, or unconnected with Medicine, it is always necessary for the purpose of avoiding confusion in expressing our ideas, that an accurate definition should be given of the subject, the class of remedial agents or the any thing, upon which we propose to write. Adopting then this method, as the only one with which we are acquainted, that will enable us to escape in description that confusion which we shall so studiously avoid. - - - - - - - - - - - -

It becomes necessary that we should define this class of remedies in doing which we shall give the general acceptation of the word {Cathartic} among Authors; reserving to ourselves the privilege of making a few remarks upon what we conceive to be its impropriety.

Cathartics are defined to be those substances which when taken internally increase the number of alvine evacuations. This the usual definition. Yet this definition we can readily conceive; when =

We consider — 1st that those substances, or at least a parts of them, will when applied to the skin, effect similar effects, 2nd that walk=ing barefooted upon a cold floor, will in many instances, be attended with like results; This surely is not a substance nor is it applied internally & 3rd and finally, if we admit that which is in=deed incontrovertible: That some of the depressing passions among which may be class that of fear, which we doubt whether sound philos=ophy will permit us to recognize as a substance, has had this effect.

It follows therefore, if these remarks be true, & we conceive them to be unobjectionable, or if they are liable to objections, we cannot fathom their source; That the definition which we have given, though that, which is usually found in books, & though recognized and adopted by the highest Au=thority with whom we are (though with diffid=ence) compelled to differ, must be incorrect, or to say the least entirely too incomprehensive:

These remarks will suffice, what we have to

say upon the mere definition, of the word. (Cathartic) further & more important observations, should this subject seem to deserve them, are left to be made, by some one. other than a Tyro in his profession: one better qualified to instruct.— more competent to decide. upon the correctness or incorrectness, of these remarks: (or if we may dignify them so far. as to style them Arguments) which we have advanced

The Anatomy of the parts, upon which those agents operate their, effects when taken either internally, or externally, (for it is upon the same parts, that their alternate effects, are produced; whether administered in either way, (in the accomplishments, of their remedial agency. will meets with no consideration here.

We have only to remark, in respects, to the Anatomy of the Canal; That the whole extent of its internal surface, is lined with a delicate mucous, or bilous, membrane. from which, there are constantly taking place, secretions, of various kinds, some, merely for the purpose of lubricating &

protecting, the delicate internal membrane, al-
ready alluded to, from the irritating contacts,
of substances, which would otherwise exert upon
it, a deleterious influence, others among which,
the gastric juice, stands most conspicuous; but
as it has little to do with the operation of these
remedies, & is little affected by their operation, we
will pass it over without further notice.
Poured into this tube from the neighbouring viscera,
we find several important secretions, & as they
are increased, or modified by the action, of the
remedial agents, of which we are about to
speak, it will not be an act of supererogation,
to give them a passing notice: The most important
of these, are the bile & pancreatic juice, but were
we to admit the assertion of Dr. Hamilton, who has
written so ably upon this subject, (Purgatives) (by that
the fluids secreted in the spleen, pass into the duo-denum,
through what passage or in what manner, he has not
thought proper to explain, we might class this also as
he does, among the secretions, which subserve important
offices, in the process of digestion; and also among

those secretions, whose pericidity, or acrimony, may be obviated, or lessened, by the action of the class of remedies, at present under consideration.

Exterior to this tunic, we find that, which has been denominated nervous, or cellular, the only office of which, appears to be that, of a connecting medium, between the mucous & muscular coats.— It is this tunic, which enables the stomach, & intestines to perform their peristaltic, & vermicular motions, It is this tunic which when irritated, by the effects, of a cathartic, coming in contact, with the mucous membrane, & propagating its influence, by contiguous sympathy, to the muscular tunic, already alluded to, & thus calling into action, the chief agents, in evacuating their contents.

We will now glance cursorily, over the mode in which this class, of remedial agents, without which, few of the diseases incident to the present improved mode of practice, & consistent with the principles of sound pathology, & daily observation, at least a few only of those, at all tinctured with febrile reaction, can be as effectually, as speedily, or as certain

-ly cured. Nor would we deem it proper to recommend the withholding of these remedies, in the greater part of the diseases which the Physician is called upon to treat, for the fear of increasing what in reality is not real, but apparent debility, - but to recommend their administration to an extent regulated by the judgment of the practicion, as the means best calculated to lessen disease - & meet existing indications.
The Ancient Writers, whose principle aim appears to have been to simplify, or rather to generalize, & as they supposed simplify, - but in reality to render still more difficult - to themselves, their contemporaries & successors, the study & acquirement of the Knowledge of a Science, the most difficult of all others - to obtain a thorough & correct knowledge of, & respecting which they knew little, when compared with the erroneous doctrines which they entertained & disseminated, to the prejudice of that Science, of which they were such ardent but illy directed votaries.
They for the purpose of rendering more intelligable to those who wished to become versed in their mystical lores, this class of remedies as well as that of

Emetics, comprehended them both under one general head, & thus Medicines, so dissimilar in their action & effects, were blended together, & served no other purpose than that of retarding the acquirement of a knowledge of a subject, which it was intended to facilitate — (if we except that of puzzling the devoted student, & puzzling his deluded preceptor) — Modern physicians & writers viewing these agents (the constituents of that Grand class, of our predecessors) critically, considering their dissimilarity of action, their dissimilar effects & the difference of parts, upon which these effects are produced, have altered this mode of arrangement, & classed them as they legitimately belonged. — This was the necessary result of increased intelligence.

Cathartics act locally upon the intestinal canal, but their influence is extended to the neighboring organs, & even to the whole system. As remedial agents, their principle effects are those of depletion, evacuation, or more evacuants of irritable matter lodged in the alimentary tube.

This class of remedies, or these cathartics, have —

been divided by Authors, into Laxatives, Purgatives & Drastics, Some have arranged Enemata, also under this head as a distinct division.

These divisions are however entirely arbitrary, but may perhaps be of practicable advantage, by directing the attention, more particularly, to the most appropriate articles, (of which this class is composed,) for administration, in particular Cases. True it is, that some of those Cathartics, denominated laxatives, such as Manna, Sulphur, &c. Can scarcely be made to operate as a purgative, or Drastic in any dose, But it is also equally true, that some of them such as Cassia, Magnesia, &c will in large doses, & under particular circumstances, produce a purgative, & even Drastic operation, (or effects) Again we find several of those classed among the purgatives which when administered in well regulated doses produce a mild laxative effect.

To render more clear however, the modus operandi of these Medicinal agents, we will adopt the arrangement already alluded to, viz to divide them into Laxatives, Purgatives, & Drastics, each of which we

shall give a separate, a cursory, but we hope an explicit consideration.-

1st Laxatives, These may be defined, such Cathartics, as gently irritate the lining membrane of the alimentary canal, when brought in contact with its surface.- This irritation is propagated, by means of contiguous sympathy, to the muscular coat, which is called into action, the peristaltic motions of the intestines are increased, & this together with the slight exhalation, produced by the first impression of the medicine, effects the expulsion of the fæces.

2nd Purgatives,- These are but laxatives, invested with increased power of action, They for the most part produce their effects in a shorter period than the class already considered,- the exhalation they occasion together with the increased mucous secretion, attending their operation, is greater in quantity, & more rapid in its elimination than in the operation of laxatives.- by this increased secretion & exhalation, the contents of the tube are attenuated. The muscular coat is irritated, in a stronger degree

& its contractions are correspondingly increased.
It is thus that we account for their more rapid operation & the greater fluidity of the discharges, than in a case where a Laxative, had been administered.

3d & lastly we have to define Drastics. These bear the same relation to purgatives, as this latter class does to Laxatives. They operate when given in large or suitable doses, & without the continuation of a coexigent in an irritating & persistent manner, hence they are seldom given uncombined with other & less irritating remedies, except for the purpose of obtaining their revulsive effects.

It is to this class that the divisions of the ancients, into Hydragogues, Cholagogues, Phlegmagogues, Pantagogues, &c for the most part appertained. These were merely intended to designate the parts upon which these remedies (or those which they classed under those separate heads) were supposed peculiarly calculated to act, & also to denote the character of the discharges which they produced.

The difference of opinion exported by particular Cathartics, for partic-

-ular parts of this tube, upon which to operate their effects.- Of the cause of this preference, we confess ourselves entirely unacquainted; for the difference as to consistence produced by these agents, we think that we can satisfactorily account by assigning the more or less irritating effects of these remedies. & consequently the more or less secretion & exhalation produced which by its attenuating effects, cause this diversity of appearance - but why an article should when taken seek out one part of the tube in preference to another, on which to produce its effects - is not so explicit. Dr. Paris has indeed attempted to explain the reason of these manifesting a peculiar disposition or tendency to act upon particular parts, by the Hypothesis of its depending on the more or less solubility of these different articles, - for instance he supposes that because Gamboge, is more soluble than Aloes it must affect the intestines, higher up - This it is probable might explain the difficulty were these medicines taken by the mouth, but why it should when injected into the bicus stile display that preference, stile seek out the lower part of the intestines, & there produce its

effects, requires me think some more plausible & comprehensive. Theory than the one just alluded to, which was advanced by Dr. Paris. & adopted in part, if not wholly, by Dr. Ehrle for the want of one better: Calculated to explain the phenomenon.— As another argument Calculated to disprove this doctrine of more or less solubility we may ask Why it is that some of the articles of this class rub when applied to the external surface of the skin soak through or enter the Capillary veins by imbibition, get into the mass of circulating fluid, pass to the part upon which it acts as it were by preference, & upon which it would produce its effects were it taken per mouth, without having suffered any ~~suffered any~~ material modification, save that of dilution, & without affecting the parts in which it must necessarily come in contact in its devious & circuitous course before it comes in contact with that part, organ or tissue upon which it appears destined to produce its effects?

An Election affinity it is, which appears to be exerted by these substances in seeking out that particular part or ni[illegible] (if we may so call it) upon which it is ~~dest~~

desired to act. By this term (Elective affinity) alone are we enabled to explain the cause of these effects being produced. But what is this Elective Affinity? What is its nature? in what does its consist? These are questions much easier to propound than answer. We conceive it to be when thus applied merely a Conventional term, calculated as well as another to express (or convey an idea) of the phenomenon without an accompanying idea of the reason of its occurrence. it serves also another purpose equally important viz. that of shielding our ignorance upon this subject.

An Inaugural Dissertation
on
Dysentery.
Submitted to the examination
of the
Provost, Trustees and Medical Faculty
of the University of Maryland.
For the degree of
Doctor of Medicine.
By R. Harris Archer
of Maryland —
1835 —

To R. H. Archer M. D.
of Maryland

Sir

I have dedicated this Inaugural Essay to you from motives of gratitude, as well as duty for the favours and protection which you have so liberally bestowed on me; and although I am conscious it can add nothing to your fame or usefullness, it will discover to you the high sense which I entertain of both, and the obligations which I owe to you for your paternal care and instruction through every period of my life—

Accept, Sir, my most fervent wishes for your health, for a continuance of that life which has been so eminently useful to others, and for your future happiness—

Your sincerely affectionate Son and Pupil
R. Harris Archer

Inaugural Dissertation &c.

Dysentery consists in an inflammation of the mucous membrane of the intestines confined to the colon and rectum chiefly, characterized by frequent mucous and bloody stools, tormina, tenesmus and retention of the natural feces.

This form of disease commences sometimes with costiveness, and at other times with laxity of the bowels, continuing in some instances two or three days without being accompanied with any painful symptoms. Sometimes the disease comes on suddenly, with griping mucous and bloody stools and tenesmus, and this is most apt to be the case

hen it arises from causes that act immediately on the mucous membrane of the intestines. The disease sometimes commences with lassitude, slight rigors, disorder of the stomach and other symptoms of fever. There is generally more or less fever attending the disease, sometimes of an inflammatory type, often however it is of a low typhoid grade. Little or no fæces are discharged, and when they are, it is in a compact and hardened form; the stools consist chiefly of mucus, in many instances however there is a considerable discharge of blood, and in some cases the discharge consists almost entirely of blood.

As the disease advances the symptoms enumerated increase in violence. In protracted and unsubdued cases great prostration occurs; the pulse becomes small and frequent, the abdomen tender, the tongue is covered with a dark fur, the countenance pale and cadaverous, the extremities cold, hiccup and finally death.

Causes- Obstructed perspiration from cold is a frequent cause of dysentery- Dr Rhulen remarks "a cold and moist autumn succeeding a warm and dry summer is peculiarly favorable to the production of dysentery"- Miasmata have frequently an agency in the production of this disease- The same author remarks "Dysentery seems very often the production of the united influence of koinomiasmata and atmospheric vicissitudes."

Unwholesome and indigestible articles of food, and unripe fruit are also causes of dysentery, and all articles which irritate the alimentary canal- The disease is said sometimes to be contagious, and Dr Cullen says "it is probable that a specific contagion is to be considered as always the remote cause of dysentery". His sentiments however on this subject are different from my own. I do not think we have sufficient proof to warrant us in the opinion that the disease can ever be propagated by a specific contagion.

Post mortem appearances. The examination of persons who have died of dysentery has clearly shewn that the seat of the disease exists in the alimentary canal. The mucous membrane of the large intestines and particularly of colon and rectum exhibits signs of inflammation. In some instances more or less inflammation exists throughout the whole intestinal canal. In some violent cases marks of ulceration appear in the large intestines.

Diagnosis. The only disease with which dysentery may be confounded is diarrhoea. From this however by a little observation it may be readily distinguished. Diarrhoea chiefly consists of evacuation of feculent matter, for the stools even when watery contain dissolved feces. In dysentery the stools are retained and the evacuation consists in a small portion of mucus or mucus and blood attended with

great pain and tenesmus. Dysentery is also attended with more fever than diarrhoea.

Prognosis. The prognosis is formed from the intensness of the symptoms, the colour and smell of the stools, and strength of the patient. Colliquative and fetid stools are indication of great danger. The appearance of bile and the natural feces indicates a favourable change, more particularly when attended with a diminution of the tenesmus and tenderness of the abdomen, and general moisture of the skin.

Treatment. The treatment will vary according to the state of the system and nature of the disease as modified by causes inducing it. Bleeding, if there be an inflammatory diathesis or excess of action present, may be necessary. This however should be resorted to with great care, in dysentery as it occurs ordinarily in temperate latitudes, it is seldom necessary

Purgatives under judicious management are peculiarly advantageous in this disease. It is of the greatest importance that the bowels should be well evacuated through the whole course of the disease; the secretions of the alimentary canal are of an acrid and highly irritating character, and, if permitted to remain there, cannot fail to increase the violence of the disease. Cathartics which simply evacuate the contents of the bowels without any drastic effects are to be preferred. Sulphate of Magnesia may be used with advantage for this purpose, it should be given in small and repeated doses till the bowels are evacuated.—

Castor oil is perhaps to be preferred to the former purgative. When symptoms of hepatic derangement exist as is often the case, six or eight grains of Calomel should be given follow-

in the course of three or four hours by half an ounce of castor oil to which twenty drops of laudanum may be advantageously added when there is much irritability of the bowels.

The addition of laudanum will assist the operation of laxatives by preventing that violent griping and spasmodic contraction which the mildest purgatives sometimes produce. Rhubarb from its astringent quality and its consequent tendency to leave the bowels in a costive state should not be used. In chronic dysentery from its tonic effects it may be used with advantage.

Diaphoretics are very important medicines in this complaint. Such is the intimate connection between the intestinal canal and the skin or external surface of the body, that an increase of excitement in the one is attended with a diminution of action in the other; hence in dysentery the skin is in a dry

bowels evacuated by gentle laxatives it may be given in combination with diaphoretics as already mentioned.

In the chronic form of dysentery opium is a medicine of great importance.

Calomel given with a view to its constitutional effects is a valuable remedy in dysentery. I have myself seen two cases cured by calomel given in frequent doses till ptyalism was produced. The symptoms rapidly vanished as soon as the constitutional influence was manifest. Calomel is more particularly useful in dysentery of hot climates, where the disease assumes a highly inflammatory grade and passes rapidly through its course. Hence in general a mercurial action should be produced as soon as possible.

Blisters to the abdomen are sometimes of great advantage

cases attended with much pain and soreness.

Emollient applications may also be used with benefit.—

Enemata are highly useful in the treatment of dysentery, they should be of an emollient and soothing nature, such as infusion of flaxseed, barley water, sweet oil and laudanum &c.

Some physicians recommend injection of cold water into the rectum.—

Emollient and mucilaginous drinks should be freely allowed through the whole course of the disease.—

All irritating and indigestible articles of food should be avoided.——

When acute dysentery runs into a chronic state, we are to be governed in the treatment by the state of system.—

In general the tonic and stimulating plan is the proper

—, when this fails a salivation should be resorted to. —

I now close this short and imperfect essay, accept gentlemen, Professors in the University of Maryland, collectively and individually the best wishes of a friend. —

An Essay on

The Typhoid Fever.
Which prevailed in the Baltimore City & County
Alms House - Dec. & Jan. 1855 & 6.

For the degree of Doctor of Medicine
In the University of Maryland -
By
John A. Taylor
Maryland

To.

Drs Allen T. Bowie
Robert G. Cabell. &
James L. Cabell.
This Essay is inscribed
As a slight but sincere token of regards
By
J & P.

It is not with the hope of introducing any thing in relation to one variety of a class of diseases long interesting to the profession - that the following observations are made

To expect to add ~~any thing~~ to the existing amount of information on "Febrile diseases" which since medicine has been designated with the name of "Science" has been a subject of untiring investigations by minds imbued with philosophic acumen - is the least of my anticipations

Indeed in the laboured investigations of those who have stood high - deservedly high - for their professional acquirements the young adventurer would find but little to cheer him on his course - Their logical deductions and medical facts have been alike illusory - the one a tissue of error the other what an eminent individual terms the most dangerous of all things - "a false fact" -

The period in medicine so confidently and enthusiastically predicted by Dr Rush has not yet arrived - If the "flower blooms on the Banks of the Ohio or Monongahela" that is to cure "Epilepsy & Phthisis Pulmonalis" it "wafts it fragrance to the distant air" and "old age and casualties are not yet the only outlets for Human life"

All the erudition that has been brought to bear upon this the most important of ~~Human~~ Maladies - it must be acknowledged has fallen far short of reducing it to a demonstration - Upon no subject within the range of human investigation, can we observe that variety of opinion - that diversity of hypotheses - which the history of the theoretical views of Fever presents -

Theories upon theories have arisen - swayed for a time the minds of men - sunk again and given place to others

which in this turn have "slept the sleep that knows no waking" to innumerate even the most prominent of the Theories - which now by common consent conspired to the "Tomb of all the Capulets" would be irrelevant to the present object. Suffice it to say - that after the lapse of centuries - we find the Profn divided in relation to the proximate cause of Fever, - While the one confidently appealing to post mortem appearances totally adducit that it is always dependent upon local inflamation - in other words the mere sequela of a primary local affection - The other with no less confidence affirms that it is a specific or idiopathic disease - of which inflamation may be the consequence, but not necessarily an antecedent link in the chain of morbid phenomena

The obstinacy - the uncompromising spirit which had characterised the controversy growing out of this diversity of opinion is little creditable to those whose only object should be the "search after Truth" happily for the profession a better spirit prevails - and its members begin to learn that something may be gathered in medicine from things which at first may have seemed absurd - chimerical - Perhaps in nothing could the old maxim of Horace - "Ne. lutissimus in medicis" be observed with more advantage than in the management of Fevers

After all that has been said by - ~~Boldman~~ Theorists - By Cullen, Brown, Darwin - Rush & Broussais - What is Fever? Like life we know it only by its results The revelation of its essence is beyond the ken of human wisdom. It is only by observing its phenomena -

that the series of events - the assemblage of symptoms which go to form it in all its various modifications and protean shapes. that a proper diagnosis can be formed and of consequence; a judicious system of management adopted -

There can be very little doubt but that Fever may or may not be complicated with a local affection while it must be admitted that some part of the organism from the extensive range of sympathies they enjoy are always predisposed to participate in, and take an active action. It is no less true - that Fever may exist and even go on to a fatal termination, without the knife of the dissector being able to detect any morbid change of sufficient importance to account for that termination. The hypothesis of the eminent physiologists & pathologists therefore that would make every irritation however slight reflected upon the mucous membranes is not borne out by facts -

The Fever of which I intend speaking particularly was epidemic in the Baltimore City & County Almshouse in Dec. & Jan. 1854-5. In its course and general phenomena I am not aware that it presented any new or important modifications - which have not been accurately described by Authors who have written on the subject. Its initial stage differed in no degree from the ~~Fever~~ symptoms which usually usher in the ~~Fevers~~ of our climate - Cold alternating with flushes of Heat. Pain in the Head and Back - an uncomfortable sense of weariness, were most common its characteristics in the first stages of attack -

The symptoms varied of course according the the organ or organs which seemed most prominently effected.

At times you would be called to a patient whose pulse would be full, bounding & strong. Face flushed, eyes suffused, throbbing of the External Carotid Arteries. And in whom indeed every symptom was present of a high grade of inflamatory action. In 24 hours after the first visit you would be surprised to witness the rapid prostration of your patient. The pulse from being bounding and strong would have become feeble and irritated.

Again no one organ seemed to participate more than another in the prostrated condition of the patient. Languor, Vertigo, Debility, from the chest being depicted in the countenance, the every movement in a language too plain to be misunderstood.

In the latter variety the patient appeared to be struck down by the operation of the remote cause. Whatever that remote cause might be, even frequently no reaction whatever, and the transitions from "the incomprehensible sense of weariness". The wild Hippocratic aspect, Transcendt hallucinations, low muttering delirium, subsultus tendinum, Coma & Death could be traced with fatal and unerring certainty.

The fact stated by Authors, "that all diseases are prone to assume more or less the type of the prevailing epidemic" was evident in this.

At the time of the occurrence of the first well marked case of Typhoid Fever in the House, simple intermittents and the catarrhal fevers which in our climate usually prevail during the last of the Autumnal and first of

the winter months were quite rife in the Hospitals soon after its appearance however its influence could be traced in every variety of shade from its simplest to its most intense grade of violence

From what has been said it will be perceived that the disease of which I am speaking naturally resolves itself into two varieties. Each so participating in the general characteristics as to render their identity evident while a sufficient diversity was presented to afford distinct subjects for consideration.

The first of these varieties corresponds more nearly to the disease so ably described by Dr Southwood Smith in his treatise on Fever. "As Synochus Gravior with cerebral affection" The latter to the "Congestive Typhus" of Dr Armstrong. "Pure nervous Fever" of the older writers. "Ataxic Fever." Boisseau

If a diversity of opinion has obtained among Physicians in relation to the pathology of Fevers. their Etiology is certainly involved in no less obscurity. In those Fevers ordinarily met with. we are content with believing that they owe their origin to a peculiar condition of the atmosphere. denominated <u>Miasm</u>. When we have said this. we have arrived at the "ne plus ultra" of our information. What that Miasm is we know not and in all probability never shall know,

Opinions directly at variance have long been maintained with regard to the causation of Typhoid Fevers, the point so warmly contested. and yet sub judice is. is it contagious?. So certain is Dr Eberle of the truth of the affirmative of the interrogatory. that he

introduces its Contagious nature into his definition of the disease. So thought Dr Armstrong at one time - But it seems that subsequent observation and a more intimate acquaintance with its various phenomena, has induced him to renounce opinions once advocated and to believe with Dr J. Mason Good and many others - that Typhoid like other varieties of Fever may be produced by the vitiated condition of the Atmosphere.

It must be granted after all, that Arguments not devoid of plausibility have been urged on either side. The weight of evidence seems to be decidedly with Dr Good whose opinions have been stated above,

We must suppose that all Fevers - all diseases indeed were originally produced by some Cause altogether apart from the Agency of Contagion. And since Cases are met with in all Miasmatic districts - where Fevers of every Style merge into Typhus - without having been within the sphere of Contagion - we are compelled to conclude that Typhoid Fever - like Cholera Malignan is referable to some inappreciable Condition of the Medium that surrounds us,

Professor Dunglison in speaking of the agency of the Atmosphere in producing the Multiform Fevers referred to its agency very aptly compares it to a "Complex Lock the union of a Certain set of Numbers of which is necessary for the production of any given effect." In the generation of any one class of diseases this union may or may not take place in a series of years,

It is probable however, that the Atmosphere is not alone concerned in the production of this disease - Some predisponent cause. apart from its agency must also for its full development -

In nearly all the cases in which Typhoid Fevers have prevailed Epidemically other causes have been superadded to the Atmospheric condition - want of suitable diet - ventilation &c - The Epidemics which have broken out in Armies - as in the French Army during the Russian Campaign was owing in no inconsiderable degree to some one of these causes,

Such being the uncertainty of the Etiology of Typhoid disease - it would be manifestly difficult to assign any incontrovertable cause for the late Epidemic in the Baltimore Almshouse - The first well marked case of the disease was brought in from the City in the state of Collapse - Shortly after sporadic cases sprung up in all the various Hospitals in the House, To the superficial observer the fact above stated would be proof as strong as "Holy writ" that the disease was capable of propagating itself by a Contagion specific and peculiar - Such an opinion however is not borne out by a majority of intelligent observers, and does not rest upon a basis sufficiently fortified by Argument to secure its general adoption -

It is to be regretted that sufficient data to enable us to arrive at just conclusions in disease are so often wanting - We have indeed, an abundance of "facts" upon nearly every topic of our investigations But they are facts that have been so ascertained as

to suit preconceived some Opinion previously made up or to tally with some long Cherished Hypothesis - Look at the History of the Disease under Consideration - Consult those Authors who have professedly made it an object of study and you will perceive that the Proximate Cause is so adjusted as to Coincide precisely with preconceived notions -

It is "passing strange" that the Knife of the Anatomist should invariably exhibit under the Eye of Clutterbuck a morbid Condition of the Brain Constant - Invariable - It is no less singular that the same Knife in the hands of Broussais should have demonstrated the pathological Condition to have been - Not in the Brain - But in the Mucous membranes, Why is it that men have assertions made with so much boldness in relation to the "Local habitation" of this disease. When the "Argumentum Crucis" the scalpel of the Anatomist is appealed to in either Cases from whose decision there can be no appeal -

Unhappily it is but too evident that the desire to build up new Theories is paramount to every other Consideration - Theories founded upon a few isolated facts - Hence applied to a whole class of diseases as fixed and invariable -

That the proximate Cause as maintained by Broussais is sometimes present, no one who has had an opportunity of witnessing Post-Mortem appearances can pretend to doubt - and it is no less certain that the Condition asserted by Dr. Clutterbuck to exist invariably is true in many very many Cases. But there are other Cases in which both the one and the other are

in cases. When examined after death exhibited neither Cerebral lesion or Gastro-Enteric inflamation

It is therefore I think entirely consistent with the varied post mortem appearances to conclude. That Typhoid Fever <u>may</u> or <u>may not</u> be complicated with local affection. That when there is a <u>local affection</u> it may be located in any part of the organism. which from causes continually in operation was most predisposed to take on diseased action —

To illustrate the pathology and treatment of the disease as it existed in the Almshouse a few cases taken from many similar are subjoined

I— D— Aged 24. was admitted into the Almshouse Oct. 13. Labouring under Syphilitic Rheumatism which had been greatly agravated by one of a most nefarious set of Empyrics into whose hands he had unfortunately fallen, Under the usual mode of treatment he recovered and was on the eve of being reported from the Hospital. when the fever began to prevail in the House, — The first premonitions of the disease were experienced on the 8th of December — When first visited the "Cerebral affection" was manifest — Fever of Synochal grade — Pulse frequent — tense Tongue — dry — papillæ projecting — Skin dry — Face flushed — Eyes suffused — and patient complaining of "great misery in the Head" — 12. ℥ Blood was taken from the arm — Cups applied Lig. mucis — and a brisk Cathartic of Calomel and Jalape administered

It is unnecessary to detail the symptoms as they were presented from day to day. a general outline of the Case — will convey a sufficient idea of the

the condition of the Patient and the means employed to relieve him.

After the first or second day of the attack the prominent symptoms of Inflammatory fever were laid aside and the ~~P~~ Patient also assumed the low irritated Typhoid type. Characteristic of the Epidemic. Cups applied over Epigastrium. And a Blister to the Back of the neck with a view of relieving the Condition of the Brain which seemed the principal sufferer. He was put on the use of small doses of Calomel & Ipecac. repeated at frequent intervals during the day. His face and hands sponged with Cold water occasionally. and Cold acidulated drinks used ad libitum. Bowels opened with Ol. Ricini. or Mild enemata. Several days elapsed with any amelioration in the nervous condition of the patient.

Wine and Carbonate of Ammonia was ordered by the attending physician which was given during a part of the day. When observing an exacerbation of all the unfavourable symptoms its use was discontinued and the Calomel resumed as before. and continued until its constitutional effects were manifested. The Tongue then became moist and began to clean about the edges. Skin soft and covered with a gentle perspiration. Cal. discontinued. Patients bowels kept soluble by Castor oil & Enemata. And rigid Diatetic rules enforced. The patient convalesced rapidly and was reported entirely well —

The above case is interesting since it shows conclusively that the practice of working

powerfull stimulants cannot always be resorted to with impunity. An interesting question also arises in relation to the probable agency of Mercury in bringing about the happy termination of the disease. When various means are employed at the same time, to effect the same object it is obviously difficult to assign to each the precise agency exerted.

From the view of its pathology. Revulsion and deflection general and local were evidently indicated, But shall we assign a subordinate part to the Calomel and give to the Revulsion. and the palliative means employed the credit of the Cure? or the Contrary?

With regard to the salutary influence of Mercury in febrile diseases, we find the profession by no means unanimous. There are those indeed who positively affirm that this agent from its excitant properties is highly deleterious.. It is asserted by a distinguished member of the profession. "That Mercury by exciting its own peculiar diseased action is capable of making in upon the morbid Catenation. that may be existing in the system" Now if this be true. as there can be but little doubt it is. the inference would be clear, that since in the case just cited. the constitutional influence of the agent was induced. and that "Constitutional influence" was followed by an immediate amelioration in the condition of the patient — that the result might be attributed mainly to its agency —.

Revulsion. General and local bloodletting. when any determinations can be detected. the free use of cold palatable drinks. occasional sponging are essential means in combating the disease But from the

result of this and many similar Cases I am compelled to infer that from the Early and Judicious administration of Mercury we may Anticipate more, than from any One of the Curative means in our Power, - Indeed I may here state a fact in Confirmation of the utility of this agent in the disease - that out of the number of Cases treated, not one terminated fatally in whom Ptyalism was induced -

I — B — Otes 39. of Remarkable Habits was received into the Hospital Dec. 15th The early symptoms presented nothing peculiar - Slight and transient pain in the head - uncomfortable in whatever position he assumes Pulse small - frequent and irritable - Tongue dry and presenting a dirty white appearance - Saline Cath. was administered which operated well - To Combat the sinking of the vital powers, which could be distinguished at every visit - The Patient was put on the use of Cal. Carb. Amonia & Camp - Wine was freely admin= = istered - But without arresting in any degree the downward tendency of the disease, On the 8th day he was largely blistered - Dry Cups over Epigastrium to no purpose - the transient hallucinations became low muttering delirium And Sinkings with Subsultus tendinum, Closed the scene on the 9th day -

Autopsy 6 hours after Death -

The Stomach and Alimentary Canal exhibited no lesion to which the result Could be attributed

The Liver - the usual appearance of hard drinkers

The only thing remarkable in the Cavity of the

abdomen was the Condition of the Spleen.

This Viscus was enormously enlarged and had undergone a species of Ramollissement. appearing indeed to have been entirely disorganized. Presenting nothing but a dark-unctuous fluid retained by the peritoneal Coat of the organ. Lungs. perfectly healthy Brain. presented nothing morbid.

The above I conceive a pure case of Idiopathic Fever. the Post. Mortem was Conducted By Drs R. G. & J. L. Cabell. Both accustomed to morbid appearances. and prepared to detect traces of disease if any existed, None however was detected to whose agency the fatal termination of the Case Could be attributed. The Spleen. as we have stated in the Post. Mortem. was extensively diseased But the Knowledge of the Physiology of that Viscus and the uses to which it is subservient in the Economy is so limited, that we cannot say with any degree of certainty how far its pathological condition was concerned in causing Death.

The experiments of Magendie indeed would go to prove that the Spleen can be removed from the living Animal without causing any departure from the ordinary health of the Animal

The Analogy however is not strict since in the one case it is clearly excised by the hand of the operator and in the other it is destroyed by diseased degeneration. What was the proximate cause of Death cannot be ascertained. When it is said to be the irritation and a wearing out of the system under that irritation. so far it is true But when

me such one saying further than that. we get into the vague undefined region of hypothesis in relation to a disease. the invariable pathological condition of which as I have before remarked. the most acute observers have failed in detecting. The case is interesting since it shows that fever and inflamation although usually the concomitants of each other are not indissolubly united. that the one may exist without the superincumbention of the other.

Upon the practice in this case I shall say nothing. It was pursued by a very intelligent young Physician. Dr. Robert. G. Cabell. is sactioned by high authority, and has been attended with happy results. In truth the result of our cases in this variety of Typhoid fever, would not justify any conclusion in relation to the employment of stimuli. In some cases the patient recovered in others they did not. and it was manifestly impossible to assign their precise agency to them.

From the general consideration of stimulants however. I am induced to believe. that there are comparatively few cases in which they can be administered with advantage or even with safety. particularly those termed "diffusible" Although I believe a fever is rarely to be met with. which runs its course without inflamatory complication somewhere yet such cases do occur. and in such perhaps stimulants are highly usefull remedial agents. When their use is directed by a wise caution.

But when phlogosis does exist. whether it be

in the "Mucous Membrane". the Brain or elsewhere I cannot conceive how stimulants can do right else than augment the very condition. that the Physician wishes to obviate, We are told the patient is sinking and must have something to sustain life.. Will stimulants infuse new life into the tissues?. Will they impart that vigour necessary to support an Anti-phlogistic treatment? They cannot. On the contrary they hurry on the circulation. produce irregular determinations. and since there is already a centre of fluxion set up in the system. upon the old Axiom. "ubi irritatio ibi fluxus" they cannot fail to be highly pernicious.

In order to form a more correct idea of the pathology of that variety of the disease in illustration of which the first case was cited the ~~symptoms of a case~~ Post mortem" of a case the symptoms of which were every may analagous is subjoined.

Patient died on the 13th day of the disease Autopsy 4 hours after Death,

Stomach healthy. Mucous follicles in the duodenum and ileum slightly enlarged. ~~giving rise in some degree to the appearance~~ called by ~~Dr. Dix &c~~ "~~Dr. Dix & Patches~~". Large intestines healthy. Contents of Thorax healthy. Upon making open the Cranium the Brain was found much congested The ventricles contained bloody serum. And there was indeed more than usual evidence of great inflammatory action in that organ.

The Brain then in this variety of Typhoid Fever

being the seat of inflamatory action the treatment appropriated in the case referred to, was clearly indicated by its pathology. By this the practitioner must in all cases be governed — Without this the beautifull fabric of Medicine — Rared as it has been by the labour and wisdom of Ages, degenerates into an insignificant Empyricism —

The number of cases treated was somethingfill 35 or 40. and the average loss about 1/6 — To those acquainted with the kind of patients usually met with in the Hospitals of an Almshouse in the vicinity of a large and populous City, the average loss will not be a matter of surprise ——

An Inaugural Dissertation
on
Spinal Irritation,
Submitted to the examination
of the
Provost, Professors, and Trustees
of the
University of Maryland,
for the
Degree of Doctor of Medicine
by
Montrose Pallen.
1835.

Examined & approved.
C. Eddings

Spinal Irritation.

Perhaps there is no subject of medical inquiry on which so little has been written, and on which so much remains to be ascertained as on the class of nervous affects that have been called Spinal. Indeed, it has been also so known from Pathologists, as if they were dependent on some disorder of the nervous functions, which their rules required the administration of certain medicines to remove at pleasure.

The science of modern Physiology, and of Pathology, indeed, with the power to be so marked, still have actually given a number of facts, yet we still have the terms, nervous, and nervous centre of sensation, associated as synonymous with perfection. What perhaps tends towards the confusion to which I allude, and which seems at least one useful purpose, that of effectually obscuring all inquiry, and rendering the discovery of the truth as hopeless as we wish to despair of arriving at conclusions which will be of permanent practical utility. Thus the already light of philosophical induction before them, the practitioner of medicine already begins to feel that he is groping his way in the dark.

It was not until the middle of the last century that the opinions of the Ancients were corrected by Morgagni, & that principle established, the Pathology of twenty years afterwards, there were more accurately described by Pitcairn, the name of Nervous Disorder, Nervous Affections, or Nervous Affections, & yet still have to attend of hypochondriac affections, Hysteria, Convulsions.

Spinal Irritation.

Perhaps there is no department of Medicine, in which so little has been done, and in which so much can be effected, as in the class of diseases which has been called nervous. All that we have been able to learn from former Nosologists, is that they are dependent on some derangement of the nervous functions, and that their cure requires the administration of cordials, tonics, and antispasmodics; "et omne id genus."

The labours of modern Physiology, and of Pathology, which is only the former in a morbid state, have certainly done something for the subject; yet we still hear the terms "nervous centre" and "common centre of relation" enunciated in connection with propositions, which perhaps would puzzle the author to solve, but which serve at least one useful purpose, that of effectually silencing all impertinent enquiries into the Arcana of his art. Nevertheless, we are not to despair of arriving at conclusions which will be of immense practical utility. With the steady light of philosophical induction before him, the practitioner of medicine already begins to feel that he is not groping his way in the dark.

It was not until the middle of the last century that the attention of the profession was directed by M. André, to that painful affection which he denominated Tic Douloureux. Twenty years afterwards, the disease was more accurately described by Dr Fothergill, who gave it the name of Facies Morbus Nervorum Excrucians. The name which it generally bears is that of neuralgia, which was conferred on it by Chaussier.

For a long time this disease was located in the three great divisions of the fifth, and in the facial portion of the seventh pair of nerves. But modern investigations have established beyond all doubt that all the nerves whether cerebral, spinal, or ganglionic, are liable to its attacks. It has also been established that it may originate in any of the nervous centres and be distributed to their ultimate ramifications, or conversely, arising from those distributions be reflected back to the centres. If the disease originate in either of these modes it will of course present a simple form; but it sometimes involves many nerves of the same, or of a different class, and then it will present a complicated form. It is not our intention to enter into the details of the different varieties of this disease; it is sufficient for our present purpose only to notice those in which irritation of the spinal axis is concerned either primarily or secondarily.

In such cases "the pain is seated in the superior part of the chest, about the clavicle or scapula, or it runs down the arm sometimes even to the fingers, or passing forward, either the superficial integuments or the mammae in females, one or both suffer extremely by exquisite soreness, or intense daily pains".* Or there may be pains in the intercostal region, or in the integuments of the chest — 'In the parietes of the abdomen — In the lumbar muscles, and in those of the hips —. In such cases if an exploration of the spinal column be made there will be found very generally much tenderness on pressure.† This is also observed in some cases, when the irritation commences in the ganglia or branches of the sympathetic nerve.

* Chapman on the Dorsalgia. A.J.M.S. August 1834.
† Seale on Neuralgia.

The irritation in such cases being propagated to the spinal axis by means of the free anastomoses which exist between the two systems. Nevertheless we are enabled to form a correct diagnosis by observing the accompanying symptoms. They are such as denote a depravation of the organs deriving their nerves from this source. "The heart and great blood vessels violently palpitate, or are seized with true neuralgic pain, the lungs suffer as in Spasmodic Asthma, or the attack being more comprehensive, we have Angina Pectoris. The stomach and bowels are assailed by cramps or colics, or Gastrodynia." or the kidneys, Urinary Bladder &c may be affected. As regards the pathology of this disease there is considerable obscurity. Parry, Vaidy and others state that it is caused by undue vascularity and phlogosis of the nervous tissues. Armstrong referred it to a similar condition of the brain. We do not pledge ourselves for the correctness of this view. We are aware of a certain train of phenomena, and to them we look for our indications of cure. If the symptomatology of disease will point out the organs effected, we should not trouble ourselves too much with visionary and hypothetical speculations, but we should seek out the best means of relieving them of their morbid action. In the variety of neuralgia now under consideration the exquisite tenderness of the spinal column most clearly indicates that there is considerable irritation in the important organ therein seated. The other morbid manifestations show that the irritation has radiated to the ultimate ramifications of the nerves. Or, conversely this order may prevail. With the knowledge of this fact, the therapeutist can proceed with some

confidence in the administration of his remedies. He has in view two objects – first, to remove the irritation which is seated somewhere in the cerebro-spinal system, but most generally in the spinal axis itself, – and second, to break in upon the morbid catenation caused by the irregular action of the nervous system – To meet the first indication, he has to resort to the class of revellents – and he uses them as near as possible to the part which exhibits the irritation. Of these, the local abstraction of blood by means of cups or leeches, ranks very high – In addition to the revulsive effect, there is also a depletive one, and if there be an exalted vascular action in the nervous sheaths, this is very desireable – Moxa applied to the spine is highly spoken of – Tartar Emetic ointment, or Croton oil applied to the same place so as to produce pustulation – and other revulsives would perhaps be found to succeed as well. ~~as other~~ – All that is wanted is the revellent effect and the means are of no consequence – To accomplish the second indication the Therapeutist would select some article that would direct the nervous afflux from the affected parts, and by creating a new impression break up the morbid chain which has been existing – The whole class of tonics has been used for this purpose – But the most effectual is the Carbonate of Iron – This substance, if administered in sufficiently large doses, and persevered in for some time will rarely fail to satisfy the most sanguine expectations – We do not think it necessary to mention the various articles used – We are satisfied that the treatment we have mentioned, if at the same time we pay attention to the state of the bowels,

will be found to be the most successful – We may however state that Galvinism applied by means of Mansfords plates has lately been used with some advantage – and it is of course worthy of a trial –

The disease which illustrates spinal irritation in a more striking light is that which has received the appellation of Hysteria – A misnomer however of the greatest importance – So far from arising, as its name would indicate, from the Uterus (ὑστέρα), there are many instances of Hysteria in which that organ is not at all concerned – We would prefer to call the disease Cerebral Hemo-spasm, as proposed by Brachet,* but for the fact that there are numerous cases in which we have no spasm – The term Neuropathy which has been proposed, is also objectionable, since it is too vague; it can be applied ~~to~~ as well to any form of nervous irritation as to the one under consideration – We must therefore for want of a proper word, and in conformity with custom, continue to use the term Hysteria –

It is needless to describe the symptoms of this disease – They are so various as to have procured for it the name of Protean disease. So variable is it, that it assimilates every form – As regards the proximate cause of this singular malady there has been much diversity of opinion – Many, may almost all from the days of Hippocrates to modern times consider it to be seated somewhere in the Uterus – But in what it consists very few agree – The ovaries, the Fallopian tubes, the lining membrane, the muscular structure &c have all been charged with being

* Recherches sur la nature et le siège de l'Hystérie &c Paris 1832.

the cause of the disorder. Yet Pathological Anatomy by no means sustains the charge. Hysteria may exist for a long time and there will not be found any change in the genital organs of woman. The disease has prolonged itself for a considerable space of time and only ended with the life of the patient, and yet the most patient investigations could not discover any change in those organs. It is true that in other cases, changes have been noticed, but it is our intention to show that they are by no means constant. The same remarks apply to all the other viscera, to the stomach, to the spleen, to the liver &c. In fact the whole phenomena of the affection plainly evince that no one of the viscera is exclusively the seat of it. Nor is the disease in all the organs at the same time, because if it were, there would be functional derangement of them all, which is not the case. There would be organic lesion in them all which likewise is not the case. If again one organ were the exclusive seat of the disease we should find that organ constantly affected. whereas we know that no one is more liable to be affected than another. In truth one is often the apparent seat of the disease and then another, and the symptoms arising are so characteristic of a real lesion seated therein, that often the Physician has his attention directed to them as primary. If then the organ affected be not the seat of disease, some of its tissues must be. The lesion must be in the cellular membrane or in the vessels carrying the circulating fluids, or in the nerves.

The question is then which is the tissue affected. If it were the cellular tissue the malady would be more simple, since it would be more displayed in the parts where this tissue is most diffusely distributed. But the contrary prevails, the organs which seem to be mostly affected are almost deprived of this tissue — such as the Uterus — the Ovaries — the Liver — the Spleen — and the Gastro-Pulmonary mucous membrane — whilst the parts mostly liberally supplied with cellular membrane can be diseased for a long time without causing Hysteria. The disease cannot exist in the lymphatic system, for the temperament in which these vessels predominate, rarely suffer from Hysteria. The same remark applies to the sanguineous temperament. Nor is the acute inflammation, which is attendant on affections of this system, ever the cause of Hysteria. The disease cannot be in the blood, because if it were, the same effects which it produces to day, would be produced tomorrow, and continually until the morbific matter had been eliminated from the system. Hysteria however recurs in paroxysms, which have sometimes very long continuance and sometimes very long intervals, and it therefore cannot depend on the mass of circulating fluid. Being seated then in not one of these tissues or systems, it must be fixed in the nervous system. And if we look to it we can explain the symptoms which accompany Hysteria. They are in fact phenomena which are dependent more or less directly on nervous influence; such are the spasms, convulsive contractions,

globus hystericus, strangulation, suffocation &c—. Whatever may be the organ diseased, the nerves which are distributed to it receive a modification which they reflect on other organs either through their own anastomoses, or through the cerebro-spinal axis—

The question that next presents itself, is to determine in which nervous system the irritation is seated— Pathological Anatomy renders us no assistance here, but Physiology will. If we examine minutely the functions executed under the presidency of the Cerebro-Spinal axis we shall discover that all the phenomena of Hysteria are dependent on the influence of this nervous system— They are those we have enumerated, sensations of pain, of the ball in the Oesophagus (globus hystericus), strangulation &c— These all indicate to us that the malady is located in this system— But the most important pathological fact that we have to remember is that the irritation is oftener located in the Medulla Spinalis than in any other part of the system— and we have them as we have in neuralgia tenderness on pressure— Our indications of cure are the same as in that disease— If other symptoms should arise, owing to the extensive sympathy which exists throughout the whole animal economy, we must treat them upon the great general principles of Medical Science— Our object in this paper is merely to glance at certain phenomena generally found in the disease, and which certainly deserve some attention— We will give a few cases extracted from the Note Book of our Preceptor in Richmond, Virginia, and which go to show the efficacy of the plan we have laid down—

I. Sarah Hailstock (coloured) had been for a long time labouring under suppressed menstruation, with incontinence of Urine – She seemed to suffer no inconvenience from the want of the Menstrual flux, save that at the regular menstrual period she was attacked with rheumatism – Pains of the joints & of course of the limbs, with swelling – so as to disable her from walking – Six ounces of blood were taken from the region of the spine, by cups. After which a blister was applied immediately over the spinous process of the Vertebrae – In two days afterwards the Catamenia appeared – and her rheumatisms disappeared. In this case no examination of the Spine was made, and we therefore cannot state, whether tenderness did or did not exist –

II. Mrs Syer was attacked on the 17th of September 1832 with violent pain in her right side – She was then near her menstrual period – As there had not been for several days any alvine evacuations, she was directed to take a dose of castor oil, which did not produce any effect, other cathartics were resorted to, – drastics were used freely – together with Venesection – For thirteen days there was no faecal discharge – the pain in the side remaining the same – At this period examination of the spine was made, and it was found exquisitely sensible to the touch. A small quantity of blood was abstracted by cupping, after which tartar emetic ointment was rubbed on every three or four hours – In about 30 hours pustulation had commenced, at which time copious discharges from the bowels occurred – the pain in the side at the same time disappearing – the Catamenia came on in a day or two afterwards.

III. Miss P— had been for several years afflicted with a diarrhoea, occurring at the menstrual period; the discharges at these periods appeared to be vicarious, consisting of blood, and resembling in some respects dysentery — This state of things sometimes continued for two or three weeks, and on several occasions prevailed continuously for two or three months. This was accompanied with harassing cough — Her disease had been treated uniformly as one of the bowels without any permanent benefit, and latterly so constant had her cough become, that her friends feared the existence of consumption — The menstrual flux recurred regularly, but with extreme pain, constituting severe paroxysms — Examination showed the region about the lumbar vertebrae, as well as the upper dorsal to be tender — Tartar Emetic was rubbed over the affected parts, the bowels kept open by laxatives, the Acetate of Morphia being given at bed time in composing doses — This treatment was commenced a day or two after the conclusion of the catamenia; the next menstrual period recurred without pain; there was no return of the diarrhoea, nor has there been any since — In this case expectants were used also, but this was done in reference to dyspeptic symptoms which arose — The expectant used was Staughton bitters — The bitter principle acting as a tonic —

IV. Rebecca Twisdale. (colored) In this case the catamenia was too exuberant — constituting (if there be such a disease) Menorrhagia — the disease lasting from two to three weeks, and leaving scarcely an interval between the regular periods of menstruation — the discharge was considerably darker than usual, resembling

gramous blood — A blister was applied to that portion of the Spine which was tender to the touch, kept open for about ten days, by savin ointment — At the next menstrual period, the flux became of proper quantity, and consistence —

V. Miss R — Ætat: 16. This was a case of Amenorhœa — The abdomen was so swollen as to present the appearance of a woman considerably advanced in pregnancy — There was obstinate constipation — The lumbar Vertebræ were found tender — Tartar Emetic ointment applied —

℞

Aloe: Pulv: }
Myrr: Pulv: } āā ℥j
Sapon: Cast: cum aquâ Q.S.

Ft. pil: No 12 — quarum capiat duas quaque nocte, hora decumbendi. In about four weeks the catamenia came on, and have continued since without any interruption —

VI. Mrs Pippen — Came on with dyspnœa — frightful spasms — On the occurrence of the first paroxysm, bleeding was performed freely — Assafœtida and Sulphuric Æther exhibited — Spasms still continued with unabated violence — Bladder emptied by means of the Catheter — Rubefacient applied to the spine and spasms ceased — They recurred again on the next evening — Tartar emetic and Cantharidin applied to the spine, the spasms ceased as did the dyspnœa and they have not since returned —

VII. Miss Lucy Ann M — This case is one of Neuralgia. There was constant twitching about the eyes and inability to

to keep the eyelids in a state of rest – Great pain about the stomach. – The hiccitation was so constant, as seriously to affect the eyes, producing inflammation of the conjunctiva – The young lady had never menstruated –

℞ Carbonat: Ferri ℥ ij
Sacp: Nugin: Rad: ℥ iv
Nin: Alb: ℥ j

Fiat Mistura cujus sumatur cyathus mane quotidie.

The part of the spine which was tender to the touch, was directed to be rubbed with tartar emetic ointment – In about four weeks all these disagreable symptoms disappeared, and her menses came on –

It may be argued that in some of the cases the other remedies cured the disease – But if there be such things, as predicates and conclusions, we are warranted in believing the treatment truly effectual – We are not contending for specificism, far from it. All that we mean to say is, that the same symptom whenever it occurs is to be met by the same remedy – and ceteris paribus that it always will occur in Hysteria – If the treatment be not alone effective, why have all the means hitherto resorted to, failed to cure hysteria? Why venesection? Why Antispasmodics? It is true they may relieve a paroxysm, but that is not curing a disease – The remedies must be addressed to the primary source of the irritation –

"Sublatâ causâ, tollitur effectus"

An objection which may be urged against this treatment we have spoken of, is that neither a blister, nor tartar emetic ointment are sufficiently rapid in their operation, to relieve an hysterical paroxysm - which although not dangerous is certainly very distressing - This however can be obviated - We can resort in such cases to the Oleum Terebinthinae, and to Sinapisms. These create a revellent effect very soon and rarely fail to alleviate the sufferings - We then can use more permanent revulsives, such as we have described -

It is worthy of remark that in most cases of Hysteria there is no pain felt in the back; on the contrary surprise is generally expressed when the request is made that the Spine may be examined - You are assured that there is no pain, no soreness whatever - Yet sometimes when pressure is made the pain is so exquisitely manifested that the patient cries aloud -

Spinal irritation exists in other diseases besides those we have mentioned - Not as a constant attendant but as an occasional complication - We have seen it in some forms of Dyspepsia - in chronic Bronchitis - in the sequelae of Pleurisy - In all these cases we think it deserves some attention - The following case will illustrate that far a much better manner than any reasoning can do.

Benjamin Hobson (tailor) aetat: 26. plethoric habit, was attacked with Pleuritis - He was bled freely, and the usual remedies administered for the relief of the disease - The disease

In physics which may be usage Energy the statement
we have spoken of, is that neither a finite, nor infinite
material are sufficiently taught in their effects on
science or physical phenomena which although not
important is extremely very distressing. The human
can be divisible - he can never be such a man to
[illegible] Transformations, and to simplicity. This great
a question after [illegible] very [illegible] readily find to allow
the sufficiency. He then are [illegible] [illegible]
[illegible], [illegible] [illegible] [illegible].
It is worthy of remark that in most cases of [illegible]
there is no have felt in the [illegible], in the [illegible]
a generally affirmed when the request is made that
[illegible] may be expressed. For we believe that the
is no [illegible], no [illegible] [illegible]. That [illegible]
[illegible] is [illegible]. The [illegible] is to [illegible]
that the [illegible] [illegible].
Pained [illegible] what is then [illegible] [illegible] [illegible]
[illegible]. [illegible] a [illegible] [illegible] [illegible]
[illegible]. He [illegible] it in some forms of [illegible]
or [illegible] [illegible] - in the [illegible] of [illegible]. In
all these cases we [illegible] it [illegible] [illegible]
following can with [illegible] that [illegible] a [illegible]
[illegible] any [illegible] [illegible].
[illegible] [illegible] (Tait) [illegible] [illegible] [illegible]
[illegible] [illegible] - [illegible] [illegible], and [illegible]
[illegible] [illegible] for the [illegible] of [illegible] - [illegible]

terminated in resolution - but left a state of system resembling, somewhat, mania a potu - There was great restlessness, aggravated by hacking cough - Hydrocyanic Acid was administered freely at this stage of the disease without the patients experiencing relief - There was discovered to be considerable tinderness over the lower cervical and upper dorsal vertebrae - Tartar Emetic and Cantharides were applied, and the patient recovered rapidly -

In making these remarks we would be distinctly understood to say that we do not aver that in all cases where Spinal Irritation exists, it is the cause of the disease - This irritation may be an effect - But if it is it still requires from the enlightened practitioner some consideration - We should not overlook it because it clashes with our preconceived pathological opinions - If we have reason to suppose that there is nothing in it, yet as it has received the attention of many medical men, some of whom are of some eminence, we should at all events submit it to a fair trial; and if we can assure ourselves that we have arrived at some means by which the sufferings of our patients can be mitigated, we shall be highly rewarded in the consciousness of having done humanity some service -

An

Inaugural Dissertation

on

Vaccination

submitted to an Examination

of the Provost, the Trustees & the Faculty

of the

University of Maryland,

By

Frederick Butler.

For a Degree

of Doctor of Medicine,

A. D. 1835.

It is well known, that natural small pox is one of the most dangerous, loathsome, contagious and mortal diseases, to which human Nature is subject. Although the first authentic account of its ravages are cotemporary with the era of Mahomet, yet there are sufficient historical intimations, that instead of originating, as many have supposed, with the period of Mahomet, it had been transmitted from generation, to generation. All countries have groaned under the prevalent infliction of this dreadful scourge of mankind. No inhabitant of any nation, for many centuries, could expect to pass through life without receiving natural small pox. From one fifth to one tenth of all that were afflicted with the disease fell victims to it. The pain in violent cases, was excruciating and the pustules loathsome beyond any other disease. The lovely female under its scourge became revoltingly disfigured. The whole cuticle came off the face like a mask, and they who escaped with life, had their features so scarred as to be no longer recognized by their friends. It was one of the drains of life, through which perhaps, as great a number as by any other single disease made their exit into eternity; It was, beside, one of the most violent, and specifically contagious diseases known among men. Scarcely one in a hundred brought in the sphere of its contagion, escaped it. Amongst all the words that inspired terror in

the waking

thoughts or in dreams, no one except death was enveloped with more associations of horror, than the name of this disease. Whole nations of people peculiarly exposed to its more malignant ravages, have been swept from the face of the earth by it. In the onward progress of the human mind about two centuries since, inoculation was introduced, by which this disease was divested of its greatest terrors. The inoculated disease was comparatively mild, under the controul of medicine, and seldom carried of more than one in a hundred of its subjects, But even under this form, it occasionally assumed its native formidable character, inflicting death in its usual horrible and loathsome form. Beside in obtaining the ascendency, to be substituted for natural small pox, it had to encounter the most fierce, and strenuous opposition, from Bigotry, prejudice, and ignorance, the practice of innoculation gradually struggled through the war of ignorance and prejudice, and was introduced into all civilized countries. Mankind had become satisfied with this comparative mitigation; not thinking of a still lighter tribute to Mortality. The lovely and fair still shuddered, lest theirs might be the countenance to bear the impression of deformity; and still willing to hold out their arm to the infecting puncture, rather than risk the danger of the Natural disease. In the year 1798 a still further mitigation of the disease was published to the World by the immortal

Jenner, a name that should be venerated by mankind; It had been long observed before this discovery was made known, that certain persons connected with dairys in Great Britian were not susceptible of Small Pox, either Natural, or by inoculation. And also that these persons were previously affected with a singular kind of pustular soreness caught from milking cows, whose udders, exhibited the same pustular appearance. These facts were remarked as coincidences, yet no general inference had been drawn from them untill Dr. Jenner, investigating the disease of the kine on the spot, came to the conclusion, that this disease of the cow, might be communicated and would secure the person who had received it from the action of Small Pox. He published a number of works shewing his faith in it as evidenced by his having communicated the disease to his own child, upon whom inoculation was afterwards tried without effect, for Small Pox. The new discovery was tried upon hundreds and thousands with the same result. For this important and philanthropic discovery, the British government awarded Jenner Ten Thousand pounds Sterling. How inconceivably high and exalted, must have been his sensations, to have believed himself the instrument through, which the lives of thousands would be spared. Dr Jenners narrative brought to light the following facts that in England, where large dairies are kept, an eruptive disease of a peculiar kind had been known to exist among the cows

and which was called cow pock, the disorder was located in the udder of the animal. it was communicated to the milker, by contact, and especialy if the cuticle was abraided or thin and this person milking other cows was by this means communicated to numbers of these animals. In the person thus affected, it was not a local disease, as in the cows but a general indisposition accompanied with fever, running a regular course, not terminating fatally, The person who has labored under this disease is ever after secure against the infection of small pox by contagion or inoculation. these circumstances it would seem had been known for a great length of time in certain districts. The kine pock as it generally appears in kine, makes its appearance in the spring, in irregular pustules, on the teats or udder of the animal. They are at first of a pale blue or livid color, and contain a watery acrid fluid, the surrounding parts are swelled and inflamed, the pustules, unless timely remedies are applied, are apt to degenerate into deep ulcers, which keep up a discharge of various fluid, which becomes thicker, and concretes into cicatrices. The disorder never proves fatal to the cows. Both these animals, and an infected person, may suffer under this repeatedly, but the succeeding attacks are milder. The Horse, from a swelling to which he is subject in the hoof, secretes a grease, this was applied to the udder of a cow, and the genuine vaccine pustule was produced in the cow, which was again communicated to the human

subject, and proved to be the genuine disease. The three chief points of caution in the inoculation, of this disease, are the very considerably difficulty, of distinguishing genuine, from spurious matter, when the matter is genuine and is kept in a careless manner, it will become subject to spontaneous decomposition, and lose its power of communicating the disease, the virus of this disease is more easy to lose its power, than the variolous, matter, long keeping will also injure its virtues, or if the pustule from which the matter is taken has been in progress of disease for so long a time, that all its fluids, have become thickened, you may infer that it has lost its communicating properties, The best time for taking the matter for vaccination, is about the 7th or 8th day; before the appearance of the aureola, when it ought to be limpid and transparent, The most certain method is to keep it from arm to arm; but this is not always convenient; and hence is taken upon points, or pieces of Quill, or between glasses, it must of course be softened for use, this is done by a little water, which does not destroy its efficacy, the scab too, which falls off about the end of three weeks - more or less - is capable of communicating the affection, if dissolved in Water; and this is the most common method of application in some countries. Inoculation may be performed, at any season of the year, the summer season is preferred by some physicians The patient may sit in a cool room, or under the shade of a tree, it is a rare occurrence if more than 8 or 10 pustules appear,

every person is liable to be chilly from the effects of the disease; in summer less preperation as it is termed is required than in winter, as from the cold & irregular temperature he is liable to have more eruptions. Formerly catharties were given before inoculation some gave emetics, under all modes of preparation a Milk & Bread diet is proper, another plan was to give catharties every 3 days, and a plan was pursued which was found to cause the Small Pox inoculation to be much milder this was 1/6th gr. Tartar Emetic and 1 or 2 gr. of Calomel given every night for a week before vaccinating. Mercury however produces the same effect, if there is no antimony with it, small doses produce the desired effect, it is not necessary to make the mouth sore. Inoculation is performed by dipping the edge of the lancet in the limpid matter of the pustule of the arm, infected with the genuine disease, as soon as the pustule has secreted matter, two days before, and two days after the eighth day from the inoculation. The cuticle of the inoculated arm is to be scarified with this lancet, until the true skin is reached. If a dry crust is used it may be held over the steam of boiling water untill softened and inserted in the punctured arm, an infected piece of thread is sometimes used by being placed in the incision, which is of a longitudinal form and bound down by adhesive strips. The first indication of the success of the operation is a small point of inflammation at the part where the puncture has been made at the end of the second day and on the third day, this is still more apparent, on the 4th it generally assumes the form of a small pimple,

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with a very narrow and inflamed base, This small tumor now gradually enlarges and on the fifth day assumes a regular circumcised form, with a flattened surface with a slight depression in its centre, somewhat darker than the rest of its surface an appearance which it maintains through all its subsequent course. at this time also the vaccine pock changes from a pimple to a vesicle containing a limpid fluid. from the fifth to the Ninth day it enlarges in circumference but not in elevation so that it has a flatter appearance, at about the ninth day the pustule has arrived at maturity. Constitutional symptoms will now appear, and some of the glands of the axilla becoming painful and swollen, and a state of Languor and drowsiness, with slight chills and flushes of heat occur, Frequently no constitutional symptoms supervene, About the eighth day the circle that surrounded the pustule in its early progress begins to increase and by the tenth or eleventh day it forms a broad areola around the pock. By the eleventh day, the centre of the pustule puts on a darker hue, and this gradually extends towards the circumference, about the fourteenth day the surface of the pustule is changed into a brown scab This scab becomes still darker, and approximates a dark mahogany color. In the course of a few more days the scab seperates at the circumference, yet continuing to be firmly attached at the centre it however spontaneously falls off generally during the 3d & 4th week from the time of vaccination, leaving a slight depression in the Cuticle —